BUSINESS WEEK

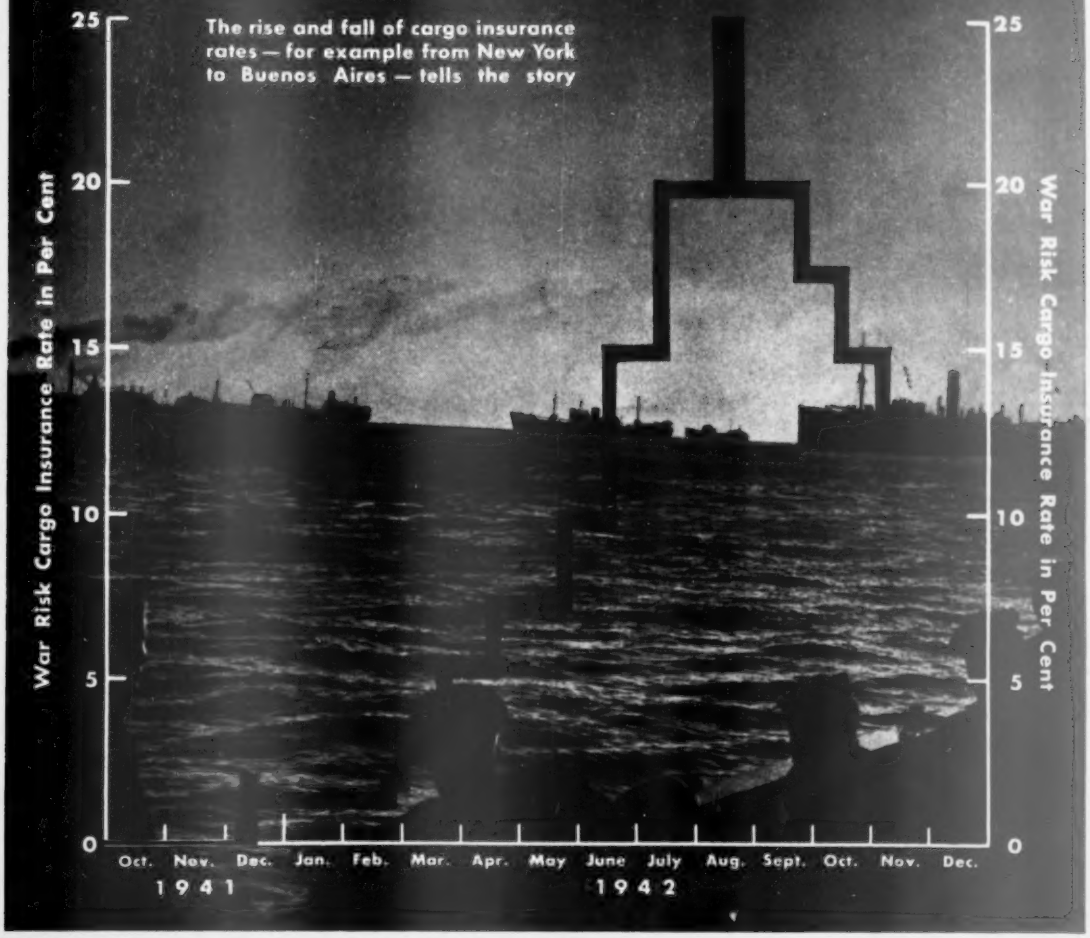
WEEK AGO

YEAR AGO

START OF WAR 1939

REPORT ON THE BATTLE OF THE ATLANTIC

The rise and fall of cargo insurance rates — for example from New York to Buenos Aires — tells the story



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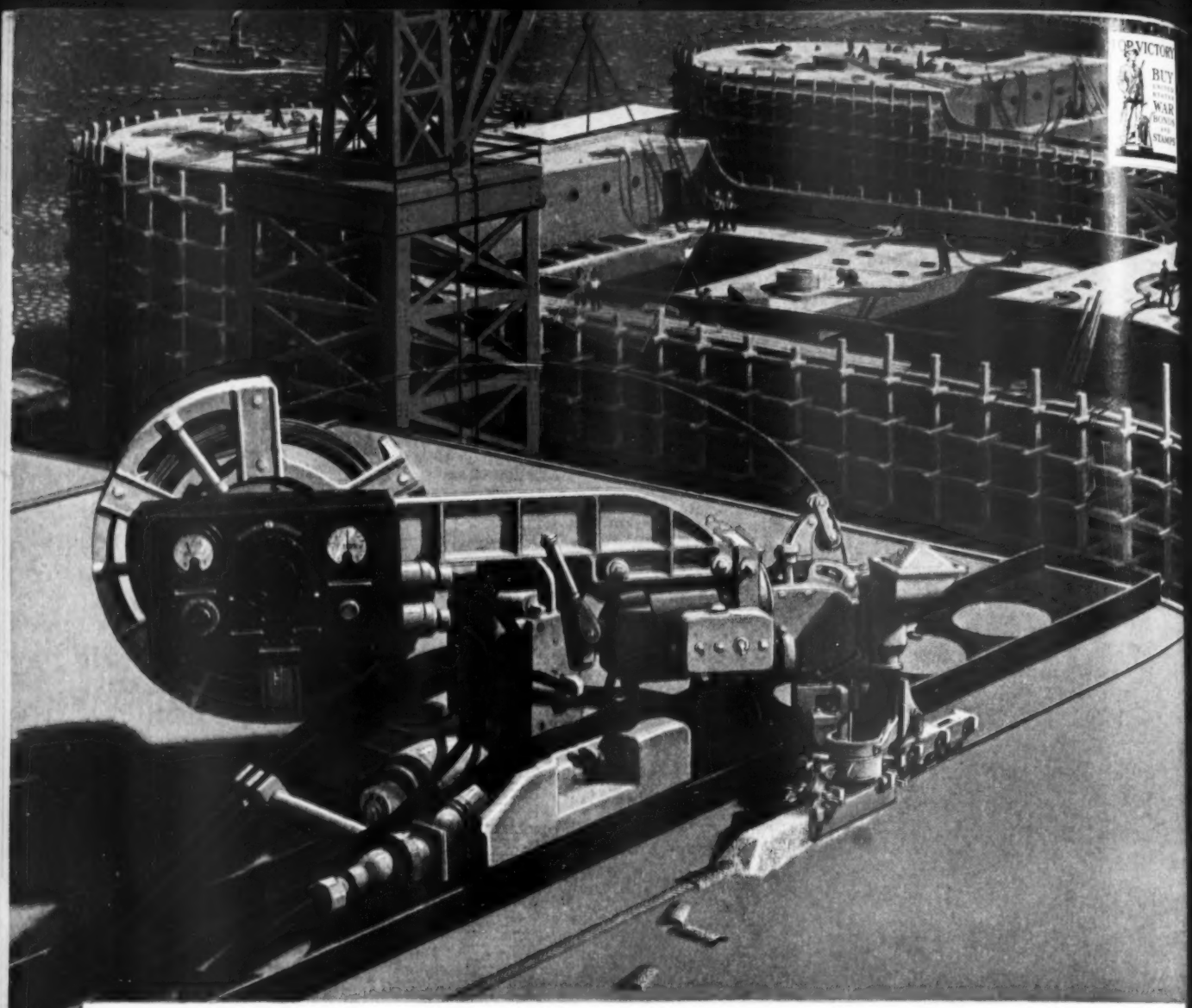

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THERE'S NEWS on America's shipways today . . : an amazing machine that unites steel plates without noise, fuss, sparks or visible arc! A process that is helping to construct those marvels of speed, strength, safety, and carrying capacity . . . "all-welded" ships!

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Unit of Union Carbide and Carbon Corporation

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BANKERS TRUST COMPANY

NEW YORK

BUSINESS WEEK

WHERE TO FIND IT

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WASHINGTON BULLETIN

WHAT THE WASHINGTON NEWS MEANS TO MANAGEMENT

Standards Program

What WPB's new assignments from Stabilizer Byrnes—to determine civilian needs, and simplify and standardize to the bone—really amount to is a directive to speed up an old job; the program outlined by Byrnes already has more than a six-months start. But it has been shy on headlines, and that's principally what makes it sound like a brand new idea.

WPB had simplified and standardized 66 groups of industrial and consumer goods, wholly or in part. In the aggregate, such limitation orders cut 12,200 sizes and types of baby carriages, bicycles, dental burrs, hammers, etc., to 3,400 while saving 1,500,000 tons of metal and 135,000,000 yd. of fabric.

But the big fireworks are yet to come, and Byrnes's statement will look like the torch that sets them off. For WPB now has 162 additional orders in the works and will issue them faster than heretofore.

• **Nothing Seems Irreducible**—As for measuring civilian needs, WPB has taken a flier at that, too (as has OPA). Whether the measurements mean anything is something else again. The fact is, that the longer the war lasts, the greater become the reductions in what only a few weeks before had been considered irreducible civilian requirements. At any rate, the paperwork and charts will be shuffled again.

Where OPA Stands

Significantly, Byrnes didn't talk about standardization and simplification to OPA—which has also been tinkering with these jobs. It wasn't necessary. WPB has the real power, but—equally important—WPB and Henderson's Office of Price Administration now see eye to eye on a topic that once caused a big rift.

OPA's old notion was that standardization must practically always mean elaborate quality-protection wherever the consumer was involved. That idea faded when Dr. Robert A. Brady resigned from OPA and many of his henchmen departed with him. OPA now agrees with WPB that standardization simply means identification of measurable characteristics in a product (with or without labels) and emphasis on interchangeable parts (notably in the industrial field). Standardization's little brother—simplification—stands for cutting out frills, as well as types and sizes of minor importance.

"Comparison Models"

OPA is perfectly happy to let WPB do the main job, so long as some measure of consumer protection is created through "comparison models"—a desire greatly enhanced by Deputy Director Keezer's survey of English experience. Object of having such models conform to OPA specifications is to give the consumer a standard of price and value by which to gage other items on the market.

Clothing, the third biggest single component (after food and rent) in the cost-of-living statistics, will be the principal field for experimentation in this direction. Food already is deemed sufficiently graded and protected. There's little anyone can do now about standardizing shelter. So clothing, somewhat by default but mainly by the necessity of uncovering hidden price inflation, is the candidate for ushering in comparison models.

New Inflation Alarms

The old skeleton of the "inflationary gap" is being rattled again—this time by Stabilizer Byrnes. How much pressure will there be against the price structure in 1943?

Treasury officials estimate the gross gap will be about $40,000,000,000. If savings run at a normal rate, if sale of war bonds doesn't falter, and, if merchants add to goods actually produced by pulling additional goods out of inventory, that $40,000,000,000 will shrink to $10,000,000,000 or $12,000,000,000. That's not an awful lot of pressure, and even some of that will be dissipated in inevitable price rises.

• **Miscalculation**—OPA is only mildly alarmed—perhaps because OPA badly miscalculated the "gap" for 1942 (Henderson's figure of $17,000,000,000, at current reckoning, was $12,000,000,000 too high). On the other hand, everybody agrees that if savings in 1943 aren't normal, that is, if they run much less than $20,000,000,000, the price structure will get a terrific strain. Apparently not willing to bank on the public's frugality when money is as cheap as water, Byrnes is more than hinting that another $16,000,000,000 should be drained off by taxes and forced savings.

Fresh Slants on Taxes

There's no chance, on the one hand, that Congress will hit 1942 incomes again or, on the other hand, that it will ride down the Treasury's opposition to suspending collection of taxes on 1942 incomes in order to put all taxation immediately on a pay-as-you-go basis. Here are the probabilities:

(1) Taxation of 1943 incomes will be put on a partial pay-as-you-go basis.

(2) Forced savings are in the cards.

(3) A general sales tax will be hard to down.

It is hazardous, even futile, to attempt a further appraisal of the situation at this time. Complexion of the new House indicates strengthening of adherence to "taxation for revenue only," which will probably be reflected in the Ways and Means Committee, in which there will be a large turnover.

Repair Priorities—Just Policy

WPB is in a swivet over the deluge of queries that resulted from the bald announcement that the lofty Requirements Committee had approved issuance of AA-1 priority ratings on repair and maintenance needs.

Actually, nothing has happened yet. The policy statement is just that—a policy statement and nothing more. Only gradually will it show its effects in formal priority orders.

Back to First View

WPB has now returned to the view—temporarily abandoned last June—that keeping existing essential equipment in good operating condition is a matter of first importance. Previous to the creation last June of the AA ratings, nearly all major industries had access to an A-1-a priority, then the highest, for maintenance and repair needs. But the double-A ratings were second-front ratings, designed, originally at least, to produce armament quick for the African offensive. So, many of the repair ratings were not stepped up to the AA level. But repairs can't be deferred indefinitely.

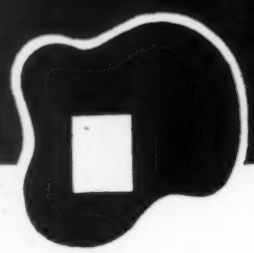
• **Rigidly Selective**—The new policy doesn't mean that all repairs are sacred; it will be rigidly selective. Early beneficiaries will be the utilities and extractive industries. Manufacturing firms operating under PRP now have an AA-2-x or AA-1 rating on their own repair needs. But, in the first quarter of next year, manufacturers of parts for essential domestic and industrial equipment will get high ratings.

Labor Board Takes Everything

You can now be sure that the War Labor Board will claim jurisdiction over wage and salary disputes affecting all in-

Top executives and management of Baldwin Locomotive, Ingersoll-Rand, Falk Corporation, SKF Industries . . . and many others . . . use it.

How about You?



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dustries and all employees, regardless of the relationship of the companies' business to the prosecution of the war.

Final decision was made after J. S. Bache & Co., big stock and commodity broker, and four New York title companies had challenged the right of the board to pass on wage and union security disputes with their organized employees. Basis of its ruling was Roosevelt's Stabilization Order of Oct. 3, which specifically extended the functions of the board "to cover all industries and all employees."

• **Other Issues Open**—The board did not rule finally on the contention that this was designed to cover only wage and salary questions, since it referred other unsettled issues to the parties for direct negotiations, and then to the New York State Mediation Board.

By Military Order Only

Taking Montgomery Ward at its word, the War Labor Board at midweek referred to the White House—for such action as the President deems appropriate under his war powers—the case in which the company had refused to accept a maintenance-of-membership order by WLB. It's word, sent to the board, was that if the President, "as Commander-in-Chief in time of war," should direct Ward's to accept the board's ruling—rather than proceed to immediate disciplinary action—the company would comply.

C.I.O. "After" Kaiser

Henry J. Kaiser once told a Washington meeting that a smart employer could avoid labor trouble by operating under a closed shop. Now Kaiser's closed shop contracts are getting him into deep water, and he may be prepared to revise his advice.

Before Kaiser even gets a plant built, he signs a closed shop agreement with the American Federation of Labor. Furious, the Congress of Industrial Organizations has asked the National Labor Relations Board to set aside all the Kaiser "sweetheart agreements" (page 119). Charging collusion and discriminatory discharge of men who refused to pay for A.F.L. work permits, the C.I.O. maintains that, in Portland at least, Kaiser has flagrantly violated the Wagner Act.

• **Hearing Expected**—NLRB has been investigating the charges, and has set a Dec. 14 Portland hearing at which the Kaiser labor policies will be put on trial. If C.I.O. allegations can be proved, contracts will have to be torn up, discharged workers reinstated with back pay, and an election held to determine which union has a majority of employees. All of which may add up to havoc of a kind that would upset the streamlined Kaiser launching schedules (page 18).

Skeptical Reorganization

Few in Washington are inclined to question the administrative beauty of the over-all Office of War Mobilization which the war agency reorganization bill now before Congress would create (page 128). Even fewer expect that the measure will get anywhere.

• **Pattern Set**—Its proposal to set up an Office of Production and Supply, uniting the job of the present War Production Board and the procurement functions of the armed services, would have the biggest practical effect if the bill went through—and the day is past when much excitement can be stirred up over this issue.

The pattern of procurement, for better or worse, has now pretty well jelled, and transfer of the procurement power to civilian hands couldn't make much difference. The Administration made its decision on this last January when Donald Nelson was organizing WPB. And critics of the present war organization are not the ones to maintain that its history encourages a belief in one-man control as the solution of all problems.

Gasoline for War

Long beset motorists in the East Coast rationed zone now have to give up part of their precious pittance to

Salesman to Sell CMP

Harold Boeschenstein has been snatched from the presidency of Owens-Corning Fiberglas to take on the job of selling industry on the virtues of the War Production Board's new Controlled Materials Plan (BW—Nov.7'42,p15). His tough task will be to educate manufacturers on how the plan works and to get it into full operation by the deadline date, July 1, 1943.

• **Sales Background**—Mr. Boeschenstein has an important selling job of his own in a fast-developing new field, and Washington hears that it took the persuasive intervention of Bernard Baruch to pull him away from his war and postwar interests in the multiplication of uses for the Fiberglas into which Owens-Illinois and Corning Glass Works put their joint subsidiary in 1938.

He came up to the presidency of Owens-Corning Fiberglas by way of the sales departments of Illinois Glass Co. and Owens-Illinois, preceded by plant operating jobs, a maintenance-of-way assignment in the Illinois Terminal (short line in southern Illinois), work in his father's Edwardsville (Ill.) bank, and service as a private, later artillery lieutenant, in the first World War.

• **Lecture Series**—As Mr. Boeschenstein goes into WPB to be director of a new CMP division under J. A. Krug, the first of a series of education and propaganda seminars with manufacturers has been called for New York next week. To get these rolling, 70 men were put through a course in CMP by the Inquiries, Instruction, and Service Branch of the new division—headed by Courtney Johnson of Studebaker. These 70 missionaries were sent to WPB field offices and are now giving intensive four-day courses to field priority specialists, who will conduct the seminars.

• **Lots of Literature**—Further to insure that no one fails to understand CMP, WPB has hired the Ross-Royd agency of Detroit to prepare a volume explaining the working of the plan in 125 colored charts. Another scheme is a series of CMP Primers—one for prime contractors, one for subcontractors, etc. There's even some thought of hiring high-priced advertising talent to tour the country making CMPep talks.

WASHINGTON BULLETIN (Continued)

keep the motorized forces rolling in North Africa. Gasoline has been scarce and getting scarcer on the seaboard for months; reserves now must be built for military requirements.

That's at the bottom of this week's reduction in the value of the "A" ration coupon from four gallons to three.

• **Due Anyhow**—Yet the cut probably would have come soon even without the new military supply problem. The fuel oil situation has been getting increasingly desperate in the East, and gasoline users, in the less vital position, were due to get it in the neck (BW—Nov.7'42, p19). The Office of the Petroleum Coordinator, determined to whack off another 139,000 bbl. of petroleum products daily in the East, proposes to get 80,000 bbl. of this out of them.

Crisis Signal

Indicative of the fuel oil crisis was OPA's warning to owners of office buildings, hotels, and apartments to convert to coal by Jan. 20 or have a mighty valid excuse.

Residential fuel oil consumers are exempt from the convert-by-Jan.-20 order but may shortly be told that they can't get even their allotted 66⅔% quota.

Evidence Against Submarines

When marine underwriters again cut war risk insurance rates on Atlantic cargoes a few days ago—to about half what they were in August—the action showed, more clearly than could any announcement from Secretary Knox, that the submarine menace is being licked. For on accurate appraisal of shiplane perils, the existence of marine insurance is based.

• **The Rates Talk**—For instance, New York-Buenos Aires rates reached a high of 25% in the last two weeks of August, are now at 12½% (see cover). Gulf of Mexico shipments, for example New Orleans to Havana, are currently 7½% compared with 15% in August. That the submarine menace in the Pacific is comparatively small is shown by the rate on the long San Francisco to Australia run, 7½%, unchanged since June.

Draft Boards, Take Notice

Selective Service officials are hoping that local draft boards will be sophisticated enough to realize that Roosevelt's ban on occupational deferments for federal workers was an in-and-out proposition aimed to undercut congressional criticism.

F. D. R.'s move wasn't intended to interfere with deferment of industrial workers, but some local boards, in revolt against drafting married men while deferring single war workers, will take it as support for their position. However, the whole trend in Selective Service and the War Manpower Commission is toward emphasis on occupation rather than dependency, and, if necessary, local boards will be instructed that the present policy still stands.

But it will be hard to prevent a rush of enlistment from war plants such as followed Gen. Hershey's warning that occupational deferments are temporary.

Friendly Takeover

Republic Steel's mill at Monroe, Mich. (it's generally known as Newton Steel Co.) hasn't done well since its strike some years ago. Republic is willing to sell, despite the fact that the dozen-year old property has an enviable geographical location right in the heart of the auto territory, and Uncle Sam is a willing and anxious buyer.

Consequently, the government has entered what is described by both parties as a friendly condemnation suit simply to secure an impartially established price. The mill, according to widespread rumors, will be converted to production of aluminum products. Little of its machinery (most modern items are a 4-high stand mill and an electrolytic line for galvanizing sheets) could be used in fabricating aluminum products.

Capital Gains (and Losses)

Appeasement seems to be in the ash can. Opening of the African campaign was followed by a WPB order cutting umbrella production by 70%.

Government Printing Office is busy printing 900,000,000 ration books for use next year. This is at the rate of three books twice a year for each individual. Meat and canned goods are sure, and dairy products very probable in first half; clothes maybe in second half.

Public ownership advocates didn't fare well in the elections but are counting on wartime tax rates to fight their battle for them. They figure that the rate of return will be forced so low that investors will desert the ship.

OPA is trying to convince manufacturers and distributors that the reason why it makes its orders so complicated is so that consumers won't get wise to trade practices and profits.

The Treasury this week gave its blessing to the Senate bill authorizing sale of government-owned silver to industry when recommended by Donald Nelson. Morgenthau wants no less than 50¢ an oz., says his average cost is 48½¢.

—*Business Week's Washington Bureau*

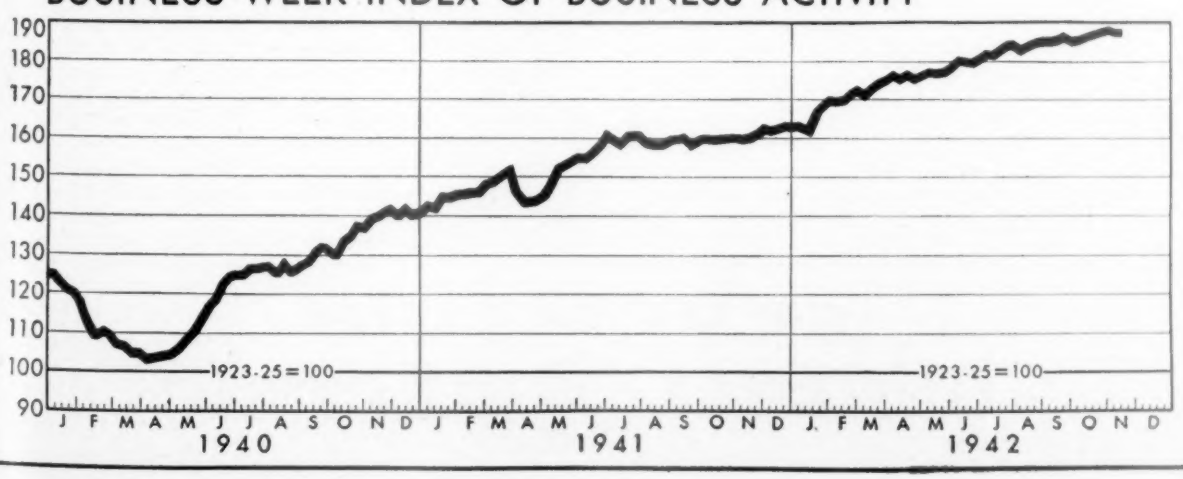
FIGURES OF THE WEEK

	§ Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
THE INDEX (see chart below)	*188.2	188.0	187.7	177.9	161.2
PRODUCTION					
Steel Ingot Operations (% of capacity)	98.7	99.6	101.0	99.2	97.0
Production of Automobiles and Trucks	20,205	†20,180	20,225	21,800	92,990
Engineering Const. Awards (Eng. News-Rec. 4-week daily av. in thousands)	$28,129	$27,605	$24,529	$44,317	$15,507
Electric Power Output (million kilowatt-hours)	3,776	3,762	3,717	3,357	3,348
Crude Oil (daily average, 1,000 bbls.)	3,880	3,838	3,902	3,484	4,087
Bituminous Coal (daily average, 1,000 tons)	1,860	1,937	1,910	1,903	1,894
TRADE					
Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars)	87	87	88	79	90
All Other Carloadings (daily average, 1,000 cars)	61	61	64	61	55
Money in Circulation (Wednesday series, millions)	$14,408	$14,312	$13,932	$11,861	$10,472
Department Store Sales (change from same week of preceding year)	+20%	†+15%	+26%	+6%	+14%
Business Failures (Dun & Bradstreet, number)	148	136	132	215	203
PRICES (Average for the week)					
Spot Commodity Index (Moody's, Dec. 31, 1931 = 100)	231.8	233.2	233.4	232.3	208.8
Industrial Raw Materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	155.4	155.6	155.6	153.4	145.4
Domestic Farm Products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	188.3	188.0	185.5	185.7	159.1
‡Finished Steel Composite (Steel, ton)	$56.73	$56.73	$56.73	$56.73	$56.73
‡Scrap Steel Composite (Iron Age, ton)	$19.17	$19.17	$19.17	$19.17	$19.17
‡Copper (electrolytic, Connecticut Valley, lb.)	12.000¢	12.000¢	12.000¢	12.000¢	12.000¢
Wheat (No. 2, hard winter, Kansas City, bu.)	$1.23	$1.22	$1.20	$1.16	$1.13
‡Sugar (raw, delivered New York, lb.)	3.74¢	3.74¢	3.74¢	3.74¢	3.50¢
Cotton (middling, ten designated markets, lb.)	19.33¢	19.43¢	18.96¢	20.08¢	16.39¢
‡Wool Tops (New York, lb.)	$1.232	$1.238	$1.240	$1.254	$1.283
‡Rubber (ribbed smoked sheets, New York, lb.)	22.50¢	22.50¢	22.50¢	22.50¢	22.50¢
FINANCE					
90 Stocks, Price Index (Standard & Poor's Corp.)	75.4	76.2	74.5	62.7	73.7
Medium Grade Corporate Bond Yield (30 Baa issues, Moody's)	4.24%	†4.23%	4.24%	4.27%	4.29%
High Grade Corporate Bond Yield (30 Aaa issues, Moody's)	2.79%	†2.79%	2.80%	2.85%	2.72%
U. S. Bond Yield (average of all taxable issues due or callable after twelve years)	2.33%	2.33%	2.33%	2.36%	2.21%
U. S. Treasury 3-to-5-year Note Yield (taxable)	1.28%	1.28%	1.28%	1.04%	0.90%
Call Loans Renewal Rate, N. Y. Stock Exchange (daily average)	1.00%	1.00%	1.00%	1.00%	1.00%
Prime Commercial Paper, 4-to-6 months, N. Y. City (prevailing rate)	¾–1%	¾–1%	¾–1%	¾%	½%
BANKING (Millions of dollars)					
Demand Deposits Adjusted, reporting member banks	28,927	28,593	28,183	25,241	24,151
Total Loans and Investments, reporting member banks	37,691	37,924	35,908	31,222	29,611
Commercial and Agricultural Loans, reporting member banks	6,359	6,314	6,353	6,669	6,633
Securities Loans, reporting member banks	911	1,034	802	828	984
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks	24,027	24,120	22,149	16,576	14,632
Other Securities Held, reporting member banks	3,323	3,359	3,495	3,645	3,662
Excess Reserves, all member banks (Wednesday series)	2,400	2,120	2,713	2,925	3,540
Total Federal Reserve Credit Outstanding (Wednesday series)	4,917	4,680	4,042	2,612	2,263

* Preliminary, week ended November 14th. † Revised.

‡ Ceiling fixed by government. § Date for "Latest Week" on each series on request.

BUSINESS WEEK INDEX OF BUSINESS ACTIVITY



To managers of war plants—large or small—who want to know what they can do with their present lighting equipment to increase wartime proauction . . save time . . energy:

THE Lamp Department of General Electric has taken on a bigger job than making and selling lamps—though we are still doing both.

As one of our contributions to winning the war, we want to place our practical knowledge and experience on lighting for production *at the disposal of any plant with war work.*

This help costs you nothing . . . and to bring it to you quickly and effectively, our trained lighting personnel, located all over the country, is at your service . . . whether your war plant is 100 square feet or 1,000,000.

This advice does not necessarily mean buying new fixtures or even lamps. It means, for the most part, practical suggestions on getting more out of your present equipment. Many of the things which can be done are simple. *Yet they may increase usable light by as much as 50%!* Things such as these:

1. Soap and water—on a regular cleaning schedule.
2. Right size bulbs in present fixtures.
3. Moving present lighting fixtures, to fit new demands.
4. Supplementary lighting—for the most critical seeing operations such as inspections.
5. Light-colored walls to reduce light absorption; light-colored finishes on machinery to increase visibility.
6. New lighting installations recommended only when absolutely necessary.

Call G-E and they will place a trained wartime lighting counsellor at your service. Perhaps the suggestions he may make will help you save precious manhours, increase safety, reduce eyestrain and fatigue. Why not find out? Reach for a telephone and call the nearest G-E lamp office, listed below.

For Wartime Lighting Help . . . Here's where to "Call G-E Lamp"

See your phone book for G-E Lamp offices in other principal cities

ATLANTA . **WAlnut 9767** . . . . . Red Rock Bldg.		**KANSAS CITY** . . . **Victor 7671** . . . . . 2100 Wyandotte St.	
BOSTON . . **HAncock 1680** . . United Shoe Machinery Bldg.		**LOS ANGELES** . . . **Michigan 8851** . . . . . Edison Bldg.	
BUFFALO . . **LAfayette 7194** . . . . . Genesee Bldg.		**MINNEAPOLIS** . . . **GRanville 7286** . . Northwestern Terminal	
CHICAGO . . **HArrison 5430** . . . . . 842 S. Canal St.		**NEW YORK** . . . . . **Wickersham 2-6300** . . 570 Lexington Ave.	
CLEVELAND . **CHerry 1010** . . . . . Williamson Bldg.		**OAKLAND** . . . . . **Higate 7340** . . . . . 1614 Campbell St.	
DALLAS . . **LD 224** . . . . . General Electric Bldg.		**PHILADELPHIA** . . . **KINgsley 3336** . . . . . Mitten Bldg.	
DENVER . . **MAin 6141** . . . . . Merchandise Mart		**PITTSBURGH** . . . . **FAirfax 7911** . 601 E. General Robinson St.	
DETROIT . . **CHerry 6910** . . . . . Book Tower		**PORTLAND** . . . . . **BEacon 2101** . . . Oregon Transfer Bldg.	

ST. LOUIS . . . . . **CHestnut 8920** . . . . . 710 N. 12th Blvd.

Or call your local electric service company or G-E Lamp supplier for helpful advice.

G-E MAZDA LAMPS

GENERAL ELECTRIC

THE OUTLOOK

Xmas Marks the Date

Shoppers out early with plenty to spend and sales soar. But steep cuts in civilian supply, widespread rationing, and sharp income-control due afterwards. War output nears peaks.

War news—this time of a smashing victory in the Solomons—captured the business headlines again this week. And, the battle's evidence that we are strongly outscoring the enemy in vital cruiser and aircraft carrier categories while our shipyards are vastly outbuilding Japan's, promised new American offensive superiority before long.

But, with Tunisia and Libya still the current fronts for British-American operations in the European theatre, and with Secretary Knox warning that the Japs will be back to attack Guadalcanal again, it is clear that no overwhelming shift in the strategic situation is immediately in the offing.

Early Shopping Heavy

And meanwhile, new severe readjustments for the civilian economy shaping up at home were highlighted, by contrast, in bulging pre-Christmas sales statistics. Consumers are not only buying more of everything they can lay hands on, but they are doing gift shopping earlier this year. The result in recent weeks has been a 15% to 20% increase in department store sales over 1941. With the gains founded in record consumer purchasing power, retailers are confident that total Christmas volume will be the best ever.

But the day of war reckoning will not be long delayed. Since department store prices are only some 5% higher than a year ago, it is evident that the primary bulge in dollar sales is due to increased physical volume, and that current heavy movement of "soft goods" is coming in large measure out of stocks. Department store inventories, on the decline since July, are now being quickly eaten up.

Curtailment Signs

Hence the move by Director of Economic Stabilization Byrnes this week asking the War Production Board to determine minimum civilian needs and to standardize and simplify civilian products. For with stockpiles off and with the war economy cutting further into civilian supply—consumption of metals was this week forbidden for another batch of kitchen utensils—widespread rationing of even soft goods looms bigger for the middle months of 1943.

Other signs fit the pattern for tighter restrictions after Christmas. Already, Eastern A-card gas rations have been cut 25%. Again, the implications of a European offensive for a stepped-up war drain on food supplies now are causing Office of Price Administration rationers to speed their food controls (page 15); and this week Fowler Harper of the War Manpower Commission warned the fur trade convention that the WMC would deliberately "raid" manpower from luxury lines—naming furs, cosmetics, and amusements, as examples.

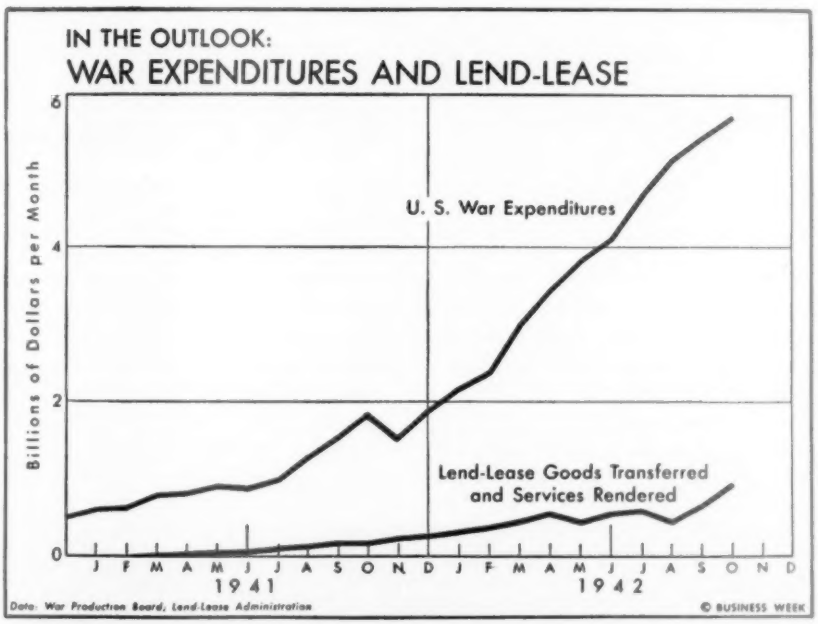
Warning on Taxes

These cuts in supply imply the need for added control over surplus income, too. And the OES is now reportedly injecting itself into the tax picture with a staff drawing up proposals for the next Congress. Administratively, of course, the OES is charged with responsibility over purchasing power. And, tactically, it may prove smart for the Administration to circumvent strained Treasury-Congress relations with a new vehicle for its proposals. Economically, the reported OES plan for a $16,000,000,000 tax-forced savings measure is very like some congressional leaders' suggestions hitherto—very unlike the Treasury's original scheme for spending taxes.

Hitting War Stride

While readjustment of the civilian economy has still far to go, the war production program is really coming into its own. And, as the year-end approaches, output peaks are in sight.

Metal-capacity expansion programs, which the Reconstruction Finance Corp. this week reported as having cost over $2,000,000,000 of its funds to promote, are due for completion by mid-1943. Successful introduction of the Controlled Materials Plan by then should have accomplished its goal of making the most of materials in terms of end-products. And curtailment of construction and other "indirect" war demands



The astounding thing about the above chart—on first glance—is not the new record for war expenditures or even the sharp rise in lend-lease (page 15) in October, but rather the enormous spread between the two curves. Such direct comparison is, however, misleading as to the relative emphasis on military aid to our allies. September-October war expenditures of over $11,000,000,000 included nearly $3,000,000,000 for construction; well over $1,000,000,000 for pay and subsistence of our armed forces; heavy amounts for naval vessels, raw materials, and prepayments on uncompleted production. On purely military production items, the $918,000,000 for lend-lease in the two months represents a higher percentage than the 14% direct relation between the lend-lease and war spending totals would indicate.

—to release supplies for output of "direct" weapons—will likewise have run much of its course by the middle of 1943.

Therefore, the pace of advance in war expenditures—direct as well as indirect—is tending to flatten (Outlook Chart). Direct munitions output will gain more sharply for a longer period. But—granting that war production may never stop advancing—the cream will soon be off the rise.

8-K Means Planes

Incidentally, there's a real bite in the present policy of putting aircraft production ahead of all other war work. The so-called 8-K schedule—highest of several alternative production programs for 1943 has been definitely adopted.

Much of the industry is skeptical about the possibility of fulfilling the schedule, but material allotments under Production Requirements Plan are being made up to the full requirements of the schedule.

Mines Seek Men

Draft deferment, freeze in present jobs, and furloughing of soldiers help, but operators still have their troubles.

Manpower is still the biggest, but by no means the only, problem confronting operators of the western nonferrous metal mines—producers of copper, lead, zinc, tungsten, molybdenum, vanadium, etc. Four hundred of them met this week at Salt Lake City in the Metal Mine War Conference of the American Mining Congress, a working convention with no industrial exhibits, no salesmen, no horseplay.

• **Goals for Next Year**—Grim groups huddled until far into the night as they hammered it out, toe-to-toe, with regional officers of the War Production Board and other federal officials. And they heard Col. C. V. Morgan of the Army and Navy Munitions Board ask a third more ore in 1943 than in 1942—for ore tonnages such as antimony, 400,000; chromite, 900,000; manganese and mercury, each 1,400,000; tungsten, 30,000; molybdenum, 13,000,000; vanadium, 4,000,000 to 5,000,000; copper, 270,000,000; beryl, 5,000; zinc, 35,000,000.

The government has moved recently, with varying success, to stanch the bleeding of manpower from the mines. Most successful move to date apparently has been the furloughing of 4,250 soldiers drawn from the mining industry.

• **Results So Far**—"We got 150," says President D. D. Moffat of Utah Copper of the furloughed soldiers, "and our superintendents say they're doing well. All manpower moves together have apparently added about 2,500 men in Montana copper mines, 1,600 in Arizona. That's real aid."

Apparently the furloughed soldiers are doing more than digging ore. Conspicuously, they're cutting down the 10% rate of absenteeism. They're saying, in effect, "Come on, you guys; if you'd been out there with a gun, you'd know how this stuff is needed. Here's where the bullets start."

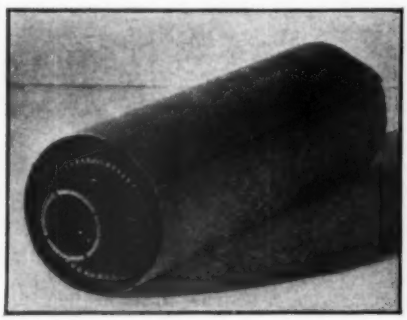
The operators claim that closing of the gold mines has brought hardly any miners into strategic-metal production. Vociferous Senator Pat McCarran of Nevada, dueling from the floor with Brig. Gen. Frank J. McSherry, operations director for the War Manpower Commission, called the gold mine closing a foolish flop, said only 100 gold miners out of 4,000 had gone to strategic mines.

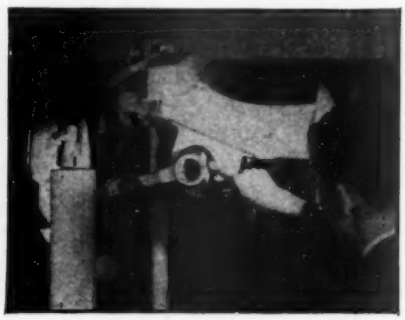
• **Some Statistics**—Gen. McSherry (who said complete manpower priorities are inevitable) declared 1,300 gold miners had been displaced, that 715 had registered for work in other mines, and that 300 already actually were in new jobs. Moreover, he asserted the saving in materials for mining was more important than the freeing of men.

The order freezing miners in their jobs, except through the U. S. Employment Service, operators agree, has largely stopped drifting and piracy. But it also has cut off the flow of new men to the mines. Similarly, the $1-a-day wage boost in Idaho and Utah is holding some labor, but it has also jammed marginal operators right up against the inflexible price ceilings with the result that exploration and development are being neglected.

• **Must Look Ahead**—This lack of development is more important than it may sound. Ore bodies must be blocked out far in advance in the interest of efficient, economical mining.

General complaint is about the competition of high wages on war jobs. Gen. McSherry contends, however, that the West is only short 3,400 experienced miners now as against 8,000 two months ago.





RUBBER SPRINGS FOR ARMY

Unless you saw the "torsilastic" spring (top left) at B. F. Goodrich Co.'s New York World's Fair exhibit (top right) and were further enlightened by a close-up of an installation on a test car (bottom), it would be hard to guess where it is beginning to be used on military combat cars. The spring is simply a steel cylinder and shaft with rubber filling the space between. Either shaft or cylinder can be held in fixed position and the other member connected by arms to the axle of a wheel. All the springing is accomplished by the twisting movement in the rubber, which stands up for long periods without breakage or need for adjustment (70,000 trouble-free miles on a test car)—hence its adoption for combat service.

Africa Rewrites Food Program

First home-front result of invasion is Washington order to raise all estimates on 1943 food requirements as strategic move in preparation for reconquest of Axis-occupied Europe.

Get ready to take a new slant on Washington's old slogan, "Food will win the war and write the peace."

Prior to the American invasion of North Africa, it was interpreted to mean that food would win the war by filling the stomachs of United Nation armies and civilian populations. With the American army occupying points from which to take off into starving Southern Europe, it now means that food will be used as a weapon of offensive warfare, political and military.

• **Estimates for Conquest**—On a directive from President Roosevelt, the Agriculture Department, the State Department, and the Lend-Lease Administration have been working feverishly for ten days to revise estimates of 1943 government food requirements.

North Africa itself is virtually self-sustaining so far as food is concerned, but Washington is looking at it as a base for invading—and immediately feeding—the starved states of Axis-occupied Europe. Political strategists see America's food winning friends where Germany has failed abysmally to do so. Food, moving in with the troops, is to sell democracy along with deliverance.

• **Dehydrated Vegetables, for Example**—The week before the U. S. invasion of North Africa, Agriculture Department officials estimated that the government would require one-fifth of the nation's total food production in 1943 for military and lend-lease purposes. This would have represented a 50% increase in the total of government requirements over this year. Now, however, no one is willing to hazard a guess as to the total 1943 requirements. Estimates in individual lines have gone up to what some officials describe as astronomical figures. For example, the sky has been declared the limit on the amounts of dehydrated vegetables that the government will be able to use during the next year.

During the last war, cereals and grains constituted the major U. S. contribution toward feeding the allied nations. Thus far in this war, U. S. shipments have been concentrated on animal proteins—dairy products, eggs, and meats. More recently, lend-lease requirements for fats and oils have been growing—notably in the case of butter for Russia.

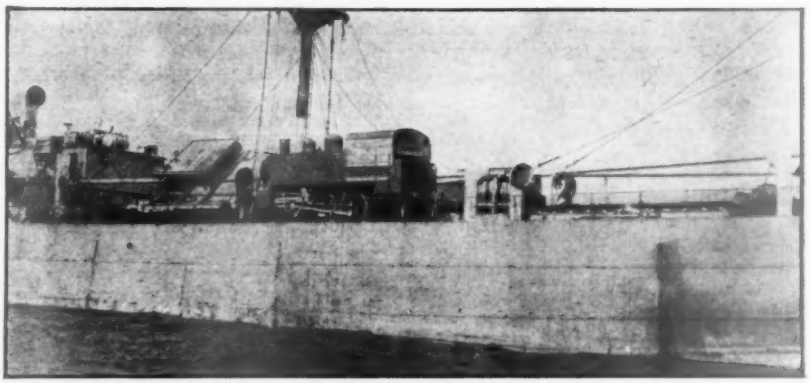
• **From the Surpluses**—New plans for feeding Europe, however, more closely resemble those of the First World War. Whereas the foods that have been shipped to date to England and Russia have primarily been designed to complete a nutritious diet, the first need for newly-freed territories will be foods designed to raise the people from a starvation level. This means cereals and grain products—our most plentiful supply. Just how long the huge U. S. surplus of wheat and other grain products will last under a program of feeding starving European nations is already a matter of lively speculation in Washington.

However, the expanded lend-lease food program involves the sharing of relatively scarce foods as well as of surplus ones, so it will inevitably accelerate rationing.

• **May Speed Rationing**—The Office of Price Administration had originally planned to start the point system of food rationing after the first of the year, trying it out on meats first and then moving slowly on to other classes of foods. The idea was to eliminate mistakes and improve the program on the basis of experience gained from meat rationing. Now OPA may have to plunge right in, following meat with dairy products, fats and oils, and even canned foods in rapid order.

The dairy picture already is serious, and official discussions of rationing possibilities are in progress. Storage stocks of butter have reached near-record lows from the impact of lend-lease, military, and civilian buying. One trouble is that price ceilings and increased incomes have kept more civilians in the butter market than ever before at this time of the year.

• **Jam on Dried Skim Milk**—Spray-process dried skim milk offers an example of why rationing or other forms of drastic distribution-control are necessary to support the lend-lease program. There



TOPSIDE FOR LEND-LEASE

Not only tanks and guns but also food and railroad equipment brought October lend-lease shipments to a record total of $915,000,000. The present level of lend-lease shipments contrasts with a total of $169,000,000 at the time of Pearl Harbor. A four-month aggregate of $2,713,000,000 in goods and services went to allied nations at a time when preparation of the African campaign was taxing supply facilities. Announcing that military items made up two-thirds of the October total, President Roosevelt emphasized the parallel importance of nonwar goods, like the narrow-gauge locomotive (above) in aiding the war effort of other United Nations.

are two processes of making dried skim milk—spray and roller. The spray-process product is easier to use in baking and manufacture of other foods, but it is also easier to reconstitute for consumer use. For the latter reason, England has asked for spray-process skim, and the Agricultural Marketing Administration has found it difficult to comply. To untangle this situation, WPB gave a directive to the Agriculture Department permitting Secretary Wickard to issue an order freezing 90% of the nation's spray-process production to fill government requirements.

One result of the new lend-lease plans will be the development of government stockpiles of processed foods. This may lead to a situation where our people will be getting reduced rations of certain foods at the same time that large stocks of these foods are stored in warehouses scattered all over the country.

• **Stockpile Tipoff**—Tipoff on the government's stockpiling program is the fact that the Agricultural Marketing Administration recently asked for bids from warehouses on charges for storing and handling the following food commodities: canned fruits and vegetables, evaporated milk, soups, juices, stews, fish and meat, flour and cereals, dried eggs, dried milk, dried beans and peas, sugar, cornstarch, and Army biscuits.

AMA already has modest stockpiles of certain foods. From the beginning of lend-lease to the end of September, 1942, it bought 60,000,000 pounds of oleomargarine. During the same time, it delivered for shipment to the United Nations only 20,000,000 pounds. The rest must be stockpiled, for AMA is blocked on any domestic distribution by the butter-margarine political fight.

• **Stimulus to Saving**—Another result of the new lend-lease plans will be increasing government emphasis on the need to save food. "Save food" campaigns similar to those of the last war can be expected in the near future. Restaurants, institutions, and housewives will be urged to prepare only the exact amounts of foods actually needed at any given time and to re-use left-overs.

• **Buying Streamlined**—In getting ready for the new program, the Agricultural Marketing Administration has streamlined its buying organization. Originally, all AMA buying was handled by a centralized purchasing branch, which had to maintain laision with branches handling all the other problems connected with lend-lease food. Under the reorganization, each major food group will have a branch of its own in AMA to do the whole job—buying and everything else. In addition, AMA has set certain specific days in every week and month when it will accept offers of certain basic foods. Thus, every prospective seller will know when to offer his food to the government.

Hold That Query!

Internal Revenue offices being established regionally to act upon applications for salary boosts—or cuts.

Regulations governing salary increases and the procedure to be followed by employers where authorization by the Bureau of Internal Revenue is necessary or advisable soon will be down in black and white. Employers contemplating salary boosts should sit tight until the official instructions are available and regional offices, which will handle the job, are opened.

• **Offices Opening**—A Salary Stabilization Unit is being organized in the Internal Revenue Bureau's Washington headquarters. This unit has handled a few of the applications pouring in from employers in recent weeks, but most of them will be referred to regional offices. A regional office has been opened in New York and others will be opening soon in Chicago, Detroit, Los Angeles, Cleveland, San Francisco, and Seattle. There will be others for a probable total of ten.

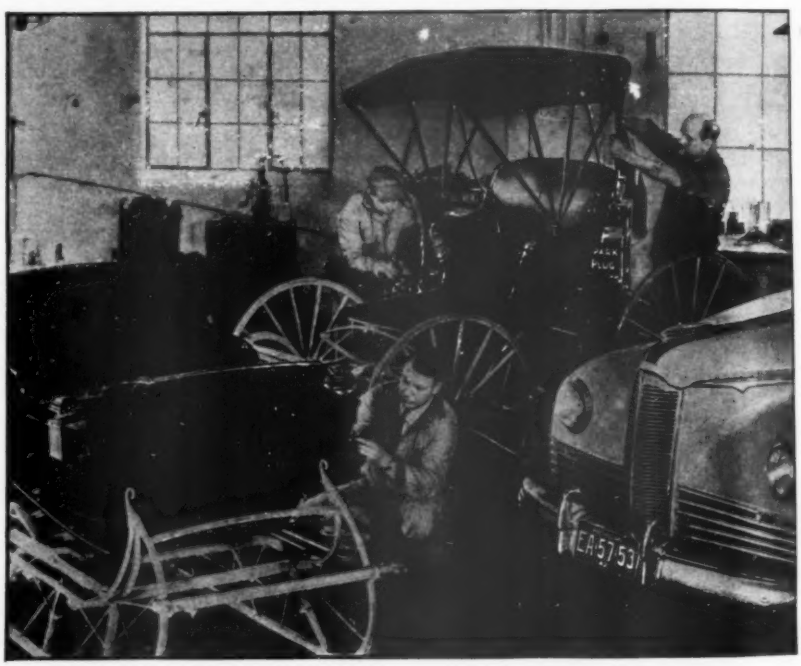
Regulations, which are getting their final polishing, are a detailed, more explicit rendering of Stabilization Director Byrnes's order of Oct. 27 (BW—Oct. 31'42,p7). The Internal Revenue Bureau's jurisdiction covers both salaries over $5,000 and salaries of $5,000 and under that are paid to executive, administrative, and professional employees not represented by a duly recognized or certified labor organization.

• **Regulations Simple**—The deadlines on salary increases affected by bureau regulations are Oct. 27 in the case of increases in salaries of $5,000 or less and Oct. 3 in salaries over $5,000. Decreases since Oct. 3 also come within bureau jurisdiction where a salary of more than $5,000 is cut below $5,000, and where a salary under $5,000 and not subject to the National War Labor Board's jurisdiction is cut.

Bureau regulations will be "strict but reasonable," according to seasoned Internal Revenue officials who are writing them. Regulations will be so explicit, so open and shut, that an employer usually will be able to determine whether the increases he proposes to make must be submitted for approval.

• **The Policy Test**—The broad test is whether increases contemplated by the employer are consistent with what he's been doing. The impression of bureau officials, gained by shuffling through day-to-day correspondence, is that employers are being cautious about making salary boosts.

Because employers apparently have



BACK TO THE HORSE

No automobilist has taken the derisive cry, "Get a horse," too seriously for a good many years. That is, not until Detroit manufacturer Jervis Webb decided an old-fashioned buggy and cutter he had procured would be apt replacements this winter for his gas-rationed automobiles. He took them to a suburban Packard dealer, Jess McNeal (front), who admits that now he can't be too selective about the types of transportation he services.

L-5 SENTINEL

One of the closest approaches to autogyro performance of any plane developed for the Army is that of Stinson Sentinel, which made its public debut last week. Officially designated as the L-5, the plane can climb almost vertically after a short takeoff run (from a cow pasture, if necessary). As it can hover at 45 miles per hour, the L-5 rates high for observation.

been playing safe, the bureau doesn't expect to meet many cases where an employer asks retroactive approval for increases already granted. In such cases, which by their nature require approval, the bureau may penalize even though it finds the increases were warranted.

• **Some Exceptions**—Salaries and wages of policemen, firemen, and other state, county, and municipal employees have been practically released from the jurisdiction of either the bureau or NWLB. Acting jointly, the two agencies decided that adjustments requiring their approval will be deemed approved if the head of the state or local agency certifies the adjustment is necessary to correct maladjustments, inequalities, or gross inequities.

NWLB and Internal Revenue retain the right to reopen such certified cases, but modifications, which may result, will not be retroactive. Adjustments that would raise salaries or wages beyond the prevailing level for similar services in the area or community must be covered by applications to the regional offices of NWLB or Internal Revenue.

• **A Sliding Scale**—To avoid complications in enforcement of the $25,000 salary ceiling (after federal taxes), the bureau has arbitrarily set $67,200 as the top gross salary limit. The practical effect is that a man with a ceiling salary of $67,200 (before federal taxes) but with no outside income will come through with somewhat more than $25,000 while the man with outside income will come through with somewhat less because higher tax rates would apply.

The Ships to Win

Success of African coup linked to Roosevelt's policy of 1937; three-fourths of Liberty quota for 1942 delivered.

Merchant ships were the only weapons this peaceful country would allow its President to produce back in 1937. Mr. Roosevelt's 50-ships-a-year program, under the New Deal's Maritime Commission, was sold to the public as a sea-commerce recovery project.

• **Became War Sinews**—But the President and many others knew then that the vessels would be available to carry munitions and supplies in event of a second World War. Last week about 500 ships, many of them part of the commission's 2,800-ship program, launched an American army at the Axis in Africa. A forehanded shipping policy had made possible the Mediterranean attack. And it had brought the shadow of defeat to Germany's desperate submarine drive to sink American supplies for the global war effort of the United Nations.

Authorities do not tell the public yet that Admiral Räder's U-boats are licked. But you can read their conclusions for yourself in the commission's successful delivery of the President's tonnage program (which was calculated to beat the Axis with plenty of margin), and you can also read it in the new design of the Liberty (EC-2) ship—for peacetime.

• **Japs Popeyed**—Everybody, including the enemy—especially Japan, which is losing ground against cargo ship losses—is astounded at our speed on the shipways. Ships built in four, seven, or ten days may be a bit over on the stunt side, but it's all to the good. It builds competitive morale between shipbuilding management and workers, pleases news readers, and gives the enemy buck fever.

This is how the fabulous Henry J. Kaiser and his runners-up do the trick. They build a complete set of huge subassemblies, hunks of ships as big as a ten-room house (page 18). Then they fire the starting gun, throw a keel on a way still smoking from a launching, and start swinging those prefabricated sections into place.

• **Time Slashed**—Stunt or no stunt, our shipbuilders have cut their time more than 70% in eight months. Last March the average on EC-2's was 149 days from keel-laying to launching plus 78.8 days outfitting for delivery, a total of 227.8 days. In October, these figures had been reduced to 48.5 days and 15.9 days respectively, a total of 64.4 days from keel-laying to delivery.

The President's program is 8,000,000 tons this year, and 16,000,000 tons in 1943. This includes both EC-2 emergency ships and C ships of the long-range program. Since the inception of the commission's plans in 1937, up to October this year, 2,800 ships of these two types, plus tankers and others, had been ordered. This does not include private and British orders, or does it include 800 small craft for United Nations.

• **Goal in Sight**—During one year, ended Oct. 1, 1942, contracts were placed for 1,851 vessels, of which 712 are C ships and 1,139 are EC-2's. During that period, 526 vessels were launched, and 403 were delivered. But the point to note mainly is that on Nov. 1 we had delivered 6,000,000 of the stipulated 8,000,000 tons scheduled for this year. By stepping up October's 890,700-ton output in November and December, we can make the 8,000,000 goal. The commission chairman, Admiral Emory S. Land, says it will not be so hard to do next year's job as it was this year's.

Shipbuilding speed can't be reduced immediately to a formula. It consists of simultaneous production of design, development, working drawings, special materials lists and requisitions, and the placing of contracts and commitments. These jobs now are done all at once instead of one after the other as formerly. But the main factor in the formula is prefabrication, which permits some 2,000,000 people, connected with 800 industrial plants throughout the country, to contribute to the merchant marine—by mail order, as it were.

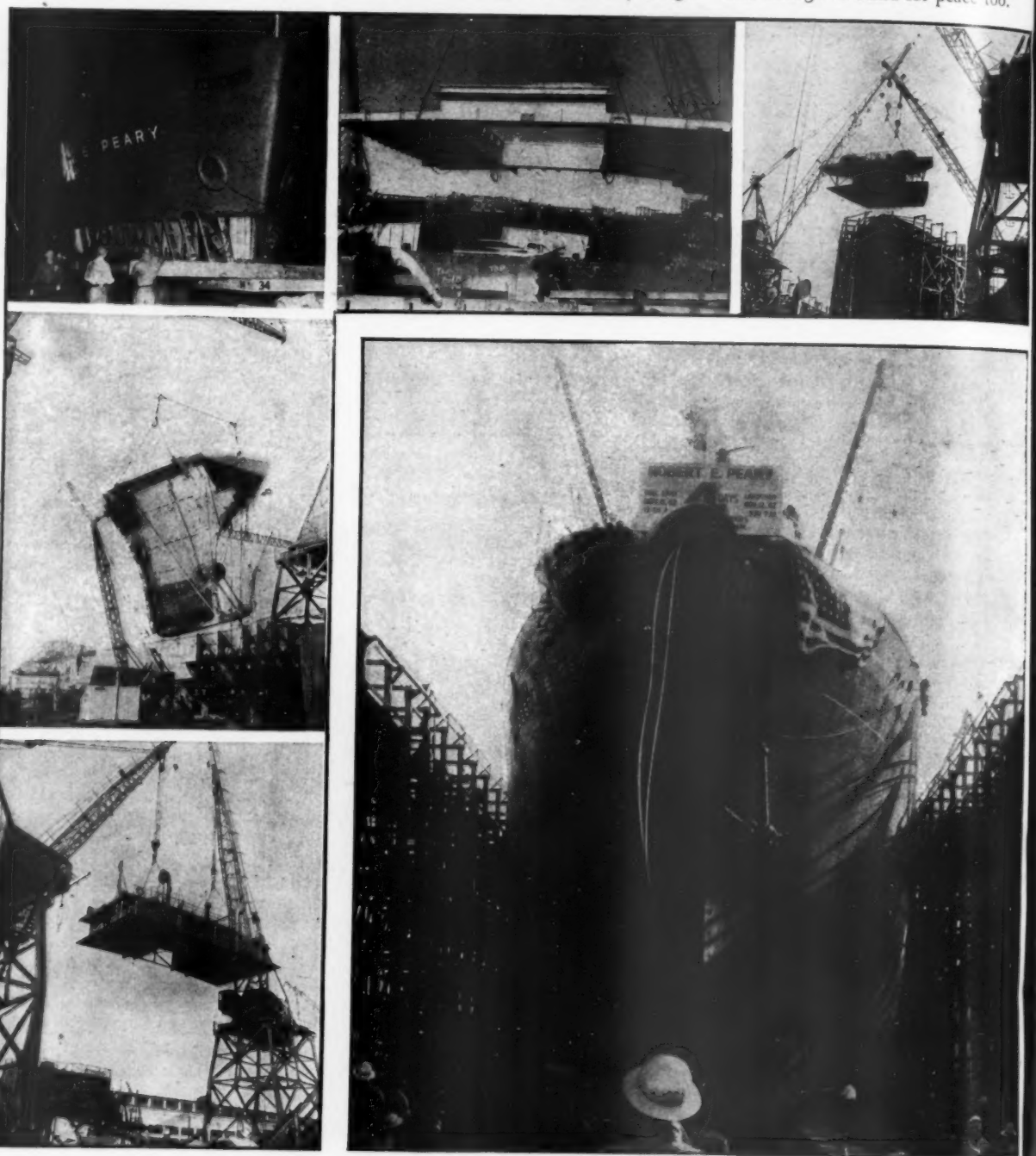
• **Just the Last Act**—At the yards, the

subassemblies are spread out, so that workers have room instead of swarming all over the ship. Final assembly, the stunt you read about, is just the last act of a long show.

The commission now has about 60 yards and more than 300 ways, but some of these facilities have been turned over to Army and Navy shipbuilding, partly because the commission's quota of materials is not sufficient to keep all ways going, and partly because of the urgent need for combat and other military type boats. Diversion of ways to Army and Navy brought the commission's output of ships down from 93 in September to 81 in October.

• Liberty for Peacetime—Speedy execution of our planned merchant program is one indicator that the enemy's blockade is beaten; another indicator is seen in the commission's new Liberty design. Admiral Land says that construction has been initiated on a new ship of greater length and beam, better hull form, more power, and more speed.

The speed will help them to evade submarines. Equally significant, the new ship has "competitive possibilities for use in postwar times." When the sub menace was grim, we talked of anything that would float; now we feel safe enough to build for peace too.



No stunt, as other record launchings have been labeled, Kaiser's Robert E. Peary job—a 10,500-ton Liberty freighter launched Nov. 14 after 4½ days of construction—represents an actual working test of a half-dozen new and daring techniques now adopted as standard practice. Before any of the prefabricated sections were actually transported to the ways and hoisted in place, Kaiser engineers tested the operation with scale models. Because the Peary was 91% complete when launched, she was ready for a test run only two days later.

Once the world's rubber capital, down-at-the-heels Belém may again become rubber-rich with our Rubber Reserve Co. offering a premium for jungle rubber.

War Comes to Belém

Rubber from up the Amazon, planes from the north, and help from the U. S. rouse the old city to high hopes of a big place in the new life that's coming to Brazil.

BELÉM—At this northern port of Brazil you are only two days by plane from Miami, but you are in another world.

Belém (also on the maps as Pará) is a city cut out of the jungles on one of the southernmost mouths of the Amazon. With a population of more than 200,000 and a river front that can accommodate the largest ocean vessels, it is the commercial capital of northern Brazil, the New Orleans of the Amazon. It is flat, so low that the houses have no cellars below ground, and is extremely humid, for it is only a few miles from the equator and surrounded by swampy jungles.

• **Once Rubber Capital**—Belém has had its ups and downs. Four hundred years ago Portuguese explorers made it a base for their explorations of the Amazon Valley. At one time it was a thriving sugar center. Later, merchants from Europe gathered along its busy wharves to buy cocoa coming from the interior. But Belém's heyday came at the beginning of this century when it was the rubber capital of the world. Its ornate opera house—where a troop of local actors has just been staging "Lady Windemere's Fan"—is a reminder of the booming days around 1910 when every rubber baron had his "palace" in the city and the hotels were filled with an easy-spending crowd of rubber buyers from all parts of the world.

Belém, today, is down at the heels. Its miles of trolley tracks are in poor repair. Trams are noisy and overcrowded. The gasoline shortage has driven all but a few taxicabs and trucks off the streets. The shipping shortage has seriously cut into the city's supplies of sugar (now almost entirely imported), meat, salt, matches, cigarettes, and fresh vegetables. The electric power system works so sputteringly on many evenings that it is impossible to use a radio. The town is very poor, and looks it.

• **Things Are Happening**—But things are beginning to happen in Belém. Since Brazil came into the war there has been a steady stream of military travel along the north coast and the "Bulge"—where Brazil reaches out toward Africa. Engineers are cutting great new military airfields out of the jungles. New roads are being built to connect these airports with supply centers. Deep wells are being drilled to provide a safe water supply. Swamps are being drained. Hotels are again crowded, and bars are doing a thriving business. The Grande Hotel, biggest and most pretentious in the city, has become practically an American boarding club.

The sidewalk cafe of the Grande is the smart meeting place for all of Belém. Cocktails begin any time after four in the afternoon. "Whiskey-soda" is 50¢ now that fresh supplies from Britain are no longer obtainable on a regular schedule. "Gintonica" is more popular for the tropics and less expensive. Guaraná, a locally made soda water, is the Coca Cola of the Grande, though all of the military airdromes and every one of the Pan American airports on the way down the Caribbean seem to be supplied with self-service Coca Cola wagons.

• **Three War Projects**—All Belém has its interest focused on three main wartime projects. The first and most spectacular is the Air Ferry Command, which, more than any other thing, has made every Brazilian in sleepy Belém air-minded—and Africa-minded. Little

FROM SOUTH AMERICA

This is the first of a series of special articles for American business men on South American events, opportunities, problems, and trends of direct war and postwar significance to them.

Like succeeding articles, which will follow as rapidly as communication facilities and censorship permit, it was written from a point in South America where the developments discussed could be observed at first hand and their interpretation buttressed by interviews with the officials and business men most concerned in them.

These articles come to Business Week from its Foreign Editor, John F. Chapman, as dispatches sent by him from South America while undertaking a special editorial mission for En Guardia, the monthly magazine published for the Coordinator of Inter-American Affairs by Business Publishers International Corp., and distributed in the other American Republics in the interest of Hemisphere relations.

As part of his work for Business Week while on this two-months' trip covering South American countries—and visiting Business Week correspondents in those countries—Mr. Chapman has also been gathering information for the Latin American phases of a forthcoming Business Week Report to Executives on the new patterns in world trade already emerging from the war. This report should be of particular value to all business men whose interests are involved in the wartime organization of a postwar world economy—and that inevitably means *all* business men.

can be written about this project while the war is still going on, but every Brazilian on this long stretch of northern coast is familiar with the drone of passing planes, and all are aware that increasing numbers of their own pilots are now helping to ferry from the United States the planes that are being turned over to Brazil for the coastal patrols.

The second project which is bound to have a tremendous influence on Belém's future is the vast drainage program which has been started to protect the city from the flood waters of the Amazon and make it a more healthful place. A huge dyke is being built around three sides of the town along a course that has been cut out of the jungle. The dyke will be an earthern embankment high enough to cope with the worst flood waters on record and wide enough to accommodate a street. In the dyke there will be flood gates, which will close automatically when the tide is rising and open when it is low to let out any water that has accumulated in the city during one of the frequent tropical showers.

Engineers and doctors who are working on the project say that it will be a model for similar undertakings up and down the Amazon Valley, for both Brazilians and Americans realize that such health measures must precede any big-scale plan to turn northern Brazil into a storehouse of tropical raw materials formerly bought in the Far East.

• **Mosquito War**—You can see how thoroughly this sanitation project is being tackled by a visit to the mosquito control research laboratory, which has just been established in the city by Brazilian authorities working in cooperation with the Rockefeller Foundation. Trained scientists have already been sent from this laboratory to each of the main centers along the Amazon where there is expected to be a base for commercial exploitation. At each center, these scientists are collecting specimens of mosquitos in the locality to see if they are the kinds that carry malaria. Belém has mosquitos but few, if any, of the malaria-carrying types. But some of the points along the Amazon that were originally selected as commercial bases have already been abandoned because they have been found to be thoroughly unhealthful.

A few doctors are already posted in the valley in the first of 50 control centers, which will be equipped to handle all kinds of medical work. In addition, there are to be 20 floating dispensaries—fast launches to handle emergency cases or to make a round of inspection at camps which will be established by the governmental and commercial interests that are preparing to develop the tropical resources on a big scale.

• **Rubber Prospects**—But the project that has most gripped the imaginations of both Brazilians and Americans is the scheme being worked out jointly to gather the greatest possible amount of raw rubber in the next two years and to lay the groundwork for a vast natural rubber supply, which Brazil believes can ultimately supply all of its expanding needs and whatever amount of natural rubber the United States may demand to mix with the huge synthetic production which is being developed now.

Crude rubber from the East Indies came to us in sheets, but rubber that comes down the Amazon to Belém has always been shaped in balls or loaves.

Despite irresponsible feature stories in a few of the local newspapers, the average Brazilian official is completely realistic about the potentialities of the program so far as the present war emergency is concerned. Little more than 20,000 tons of natural rubber were gathered last year. If present plans carry through, this amount might be doubled in 1943, though most people are skeptical of reaching that figure. But by 1944, when the program is in full swing, production might jump above 50,000 tons.

• **Help from U. S.**—Though the United States is playing an important part in the program by providing a steady market at fixed prices, technical assistance, and materials to help speed up the collection of the rubber, Brazil has its own program and is grasping the present opportunity to try to bring back a share of the world's rubber business to the country where it originated.

On the top floor of one of the most modern buildings in Belém, our own Rubber Reserve Co. has set up an office from which it is administering its share of the new program. This is the office that decided with local rubber interests what supplies were needed to carry out the program of getting rubber in a hurry, whether or not it was feasible to bring additional workers from other parts of the country to help with the tapping, what price it was necessary to pay for the rubber in order to make the work attractive and still keep it on a solid economic base, and where it would be wise to establish local collecting bases to supplement those that have existed in the valley since the last great rubber boom.

It is undoubtedly a good sign that the company has moved as slowly as necessary in order to lay a firm foundation for the work. The price of rubber was set first.

• **What a Tapper Needs**—Then a list of the supplies needed to equip the troop of tappers was worked out. How much of each item has been ordered is not revealed yet, but the supply list includes latex cups, shotguns and shells, fish hooks (the tapper must be self-sustaining while he is working the stretch of jungle he has staked out for himself and any helpers he has), tapping knives, basins for smoking the rubber, and quinine.

As many of these supplies as possible are bought locally, and the company has found two local manufacturers who are equipped to turn out the latex cups, which formerly were imported.

Established transportation facilities on the Amazon will be used as far as possible, but, to speed up the work, the company has bought four hydroplanes, the first of which has already arrived and is being used in carrying basic supplies to the principal distribution points, most important of which is Manáos, 1,000 miles up the Amazon from Belém. The other three hydroplanes are to be deliv-

When at work in the jungle, tappers must live off the land. Their guns, ammunition, and supplies are financed through a newly established institution with headquarters in Belém and a name that Brazilians insist is unfunny—the Rubber Credit Bank.

ered before the end of the year and will speed the rubber collection in such important outlying regions as Porto Velho, near the Bolivian border.

• **Organizing Job**—The second great problem, which had to be tackled in setting up the project to get as much rubber as possible in the coming 12 to 24 months, was the financing of the tappers. Because of a law restricting this kind of business to Brazilians, the Bank of Brazil stepped into the picture by creating a special Rubber Credit Bank, which will have its headquarters in Belém but will have agents operating wherever there is a rubber collection center. Agents of the Bank of Brazil recently flew from Rio to complete the details for this bank.

From $100 to $200 is needed to finance a tapper who is undertaking to open up a new region. Of the capital of this new Rubber Credit Bank, 55% has been furnished by the Brazilian government, 40% by Rubber Reserve, and 5% by the Brazilian public. The president of the bank is a Brazilian, and there is one Brazilian and one American director (appointed by Rubber Reserve) on the board.

Brazilian authorities, who are as eager to boost the output of rubber in the next important two years as they are to lay a foundation for reviving the country's rubber-producing potentialities, have worked a scheme to insure that the tappers get a fair share of the higher price being paid for rubber. In the past, the business was in the hands of a comparatively few big operators in Belém who, according to most Brazilians, have operated more for a maximum of profit than for the good of the industry. Whenever the price of rubber was boosted, they upped the prices of the supplies they sent up the valley to the tappers. As a result, there was little incentive to the tappers to boost their output.

• **Profits Control**—Under the new program, both Brazilians and Americans want to use the local collecting and marketing organizations as far as possible, but they refuse to do this unless the old-timers will cut their share of the profit on each pound of rubber produced so that the tappers can benefit. It is for this reason that the Rubber Credit Bank will establish its own agents in the valley. They will leave the business to local operators so long as they conform to the new plan. If they refuse to cooperate, the Brazilian authorities are prepared to step in and handle the collecting job themselves.

One week in Belém makes it plain that rubber is the white hope of the average citizen. Some of them recall the thriving days of 1910 and believe these will return with all their tawdry showiness. Others are fascinated by the dream of coming to the rescue of the United States in the present rubber crisis. But a growing number of responsible Brazilians realize that rubber is only one of the tropical products that can be grown commercially in the Amazon Valley if they will buckle down to the task of making the region more healthful and of putting the business on a systematic basis.

• **Food Problem**—Belém, at the mouth of a great river valley, has always gambled in tropical products from the hinterland, neglected the need of a local food supply, and bought its daily food from up and down the coast. Now the city is worried. The shipping shortage has cut off these coastal supplies, and Belém is threatened with a serious shortage. Experts say that less than 140,000 acres in the entire Amazon Valley are cultivated in food crops. Ford's experimental plantations are probably the only large-scale cultivators of food in the valley. One agricultural expert declared that agriculture development in equatorial Africa is nearly six times as intensive as in northern Brazil.

A change is on the way. The rubber program has stirred up the local people. They have heard stories of the wartime demand for palm oils, rotenone (for insecticides), and babassu nuts (for their glycerine as well as their vegetable oil). The United States is actively in the market. The Brazilian government is pushing research and exploration. And the local Brazilian is beginning to show an interest in a better economic future. The economic outlook for Amazon Valley business is better than it has been in a long time.

Ice Cream in Brazil

Americans put eggs in two baskets and come up with good sideline. Forced from China by the Japanese.

RIO DE JANEIRO—A couple of American sailors, ashore after weeks of convoy duty in the South Atlantic, sauntered down Copacabana Beach looking for something to relieve their nostalgia for Keokuk or Peoria. They whooped with joy when a Brazilian friend said, "how about a good American ice cream cone in the local five-and-ten-cent store?"

That was the nearest they'd been to Main Street in a long time, and they could thank the Japanese for forcing a successful American food industry to flee from China to Brazil.

American ice cream in summer and dried eggs in other seasons are products of Cia. U. S. Harkson do Brasil. In the Far East, its $2,000,000 organization was credited with having the most efficient national food distribution system in China. Started in 1924 by U. S. (for Ulysses Severin) Harkson of Portland, Ore., (later joined by Kent Lutey of Butte, Mont.), the firm first engaged in the sale of dried egg products, later added frozen eggs to its line, and at its peak was breaking 2,000,000 eggs a day in its Shanghai plants. Other units were established in Hankow and Calcutta.

Because hot weather is the off season for chickens, Harkson and Lutey added ice cream to their line to counteract the seasonal lag.

The "China incident" changed ideas of expansion into South American markets into an actual evacuation of China, and Lutey arrived in Brazil in May, 1940, to survey commercial possibilities. He found that local egg production frequently fell below current demand, but occasional surpluses were bought eagerly for shipment "fresh" to Britain. The field for frozen and dried eggs was open.

Moreover, since Brazil had only frozen juices (sorvetes), which passed for ice cream, a quick test proved that real ice cream would sell. Taking the root of the common name and adding a selling tag, the new ice cream hit the market as "Sorvex Kibon"—how good (que bon) ice cream. Ice cream sticks sell for 5¢ and a quart for a quarter.

The war has not failed to hit "refugee" business men even in their Brazil operations. With present equipment operating at capacity, additional refrigeration machinery was lost at sea a few months ago, and 20 tons more is on an American dock awaiting an export license. The company will be equipped to increase its production of dried and frozen eggs for export to Britain when this machinery arrives, has already supplied two tons for feeding British prisoners in Singapore.

Harkson do Brasil is starting on a small scale but, with a five year expansion program aimed at 1,000,000 eggs a day, is working closely with the Brazilian government to expand egg production, particularly in the states of Sao Paulo, Rio de Janeiro, and Minas Geraes.

Besides supplying eggs for Britain and other fighting fronts, the company is offering dried eggs to northern Brazilian localities hit by food shortages (page 19) since one ton of powder is equal to 80,000 eggs and takes only a fraction of the shipping space.

Britannica's Atlas

Sears, Roebuck brings out $20 volume of maps and special features under the aegis of time-honored encyclopaedia.

Encyclopaedia Britannica proves that its era of renaissance under Sears, Roebuck & Co. is still healthy by taking the plunge many map and gazetteer editors hesitate to consider in wartime—publication of a new world atlas. For, although wars boom demand for geographic details, most cartographers are avoiding long-range projects while international boundaries are fluid.

• **Postwar Supplement**—Staking its new venture on Allied promises that frontiers absorbed by force will not be recognized at peace conferences, Britannica professes little fear its atlas will be a war casualty and feels a brief postwar supplement will bring it up to date.

The 17 by 13-inch volume is the product of a year and a half of research and editing under the direction of Dr. G. Donald Hudson, geography professor at Northwestern University. It brings several innovations to the atlas field, including a completely cross-referenced index of 100,000 entries and extensive geopolitical data. A section entitled World Spheres of Influence gives a quick picture of each nation's war and peacetime potentialities.

• **Sears Takes Over**—While this marks Britannica's first entry into separate mapping and gazetteering, it is the sixth supplementary service the traditional reference work has evolved since saved from oblivion by a Sears financial transfusion in 1929. The 154-year-old encyclopaedia was financially anemic when Sears, under President Julius P. Rosenwald, poured $1,000,000 into its arteries, rescuing the mail order giant's previous stock investment and gaining title to a time-honored tradition.

While Sears's money and management ultimately set Britannica on its feet, the shot in the arm had little effect im-

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That we must forego many of our most valued contacts with old friends, must interrupt long and happy business relations, we regret deeply and sincerely. But it's our war and your war and we have to fight it with everything we've got.

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mediately. It had provided half of the production cost of edition No. 14, but 1929 was the beginning of a bad-business epidemic. Britannica's sales plummeted and deficits soared for three years.

• **Reason for Sales Lag**—Then Sears's treasurer, E. Harrison Powell, stepped into the picture with a bag of tricks unequaled since three Scotsmen launched the Encyclopaedia at Edinburgh in 1768. Powell got to the seat of Britannica's ills when he found that it took from 3 to 13 years to prepare an edition, a period in which sales dried up while the public awaited the new issue.

One of Powell's first orders froze Britannica editions at the 1929 issue, eliminating the haphazard interval that had spaced issues since the volumes were founded. Then he ordered the encyclopaedia revised each year—a relatively simple task since 75% of its contents are stable facts. A supplementary year book of chronological events was added to the line, retailing only to set owners at $2.85.

• **Boon or Boomerang**—Three years ago, Powell put Britannica on the air to give away complete sets of 24 volumes to listeners who stump the experts on Information Please. This proved somewhat of a boomerang when prospective customers turned up with the excuse they were trying to win a set. The encyclopaedia successfully combated those ideas by promising a full cash refund if the buyer won within three months—a promise it has had to keep only twice while maintaining a give-away average of two and one-half sets per week.

Although the encyclopaedia bears none of the programing costs, radio undoubtedly contributes to its robust sales. Last year volume rose 35% over 1940, this year is adding another 45%. Total sets sold remain a deep Sears secret, and Britannica profits are lumped into the parent company's in financial statements.

• **Not in the Catalog**—Major retail outlet for the encyclopaedia and the new atlas is the company's own sales force of some 600 specially trained representatives, supplemented by 14 department stores in New York, Philadelphia, and Chicago. Oddly enough, Britannica cannot be found in Sears's own stores or in the catalog. Another oddity is the fact that 40% of the encyclopaedia's customers are in the $2,500 a year income class, although the sets range in price from $167.85.

Unlike most Britannica supplements, such as research reports, reading and study courses, the new atlas is available to the general public as well as to set owners. It costs $20. Bringing out the atlas when geographical interest is high, Sears finds also the war problem of meeting early demands for 15,000 copies with a manpower capacity for only 8,000 this year.

Buses Curbed

Of six cities picked to lose buses, Chicago gets off easiest. Cut deepest where other services can be used.

After Dec. 1, the New York Christmas shopper traveling from the snooty reaches of upper Fifth Ave. to plebeian 34th St. will have to wait longer to get a bus and will encounter uncomfortable crowding inside. That is the main idea.

"Discomfort or defeat," is the comment of Joseph B. Eastman, director of the Office of Defense Transportation, in announcing a deep cut for municipal bus transportation in six big cities. The order, issued Nov. 10, is designed to conserve tires and equipment by forcing passengers to use rail facilities. It will save about 100,000,000 bus-tire miles annually, or enough to keep 400 buses running for a full year.

• **Six on the List**—Cities included are New York, Chicago, Philadelphia, Baltimore, Cincinnati, and Richmond. The orders affecting Philadelphia and Baltimore specify routes that must be abolished or curtailed, the compliance date being Dec. 28. A flat 15% reduction in bus mileage is imposed on the other four towns as of Dec. 1; the method of meeting it is optional with the operators.

New York bus companies will reduce the number of bus runs by an average of one in six. If riders resent the longer waits and overcrowding, they can hunt a subway, walk, or stay at home (any of which would be OK with Washington). Transit companies in the metropolis will continue to use all their buses but will run them for shorter periods, which will allow time out for badly needed repairs. If they laid up any of their vehicles, Washington might commandeer them for workers in defense areas. Since New York's magnificent subway system can take up most of the slack, travel on cross-town bus service on runs not paralleled by the underground will be hit hardest.

• **Chicago Started Late**—Chicago will get off easier than her sister cities because she was slower in changing to rubber. Buses operated by the Chicago Surface Lines and by Chicago Motor Coach Co. carry only 15% of the traffic, the other 85% travels by trolley or elevated. Surface Lines is trying to find out if the order applies to routes serving war workers. Recently, at ODT's request, the company took 15 buses from other runs to inaugurate three lines to the Dodge plant on the South Side.

While the Chicago companies are allowed to work out their problem in their own way, the ODT order makes some pointed suggestions. By description (not by name), it specifies three

Surface Lines bus routes that might very well be eliminated because of street car lines in the vicinity. The company suspects where this unerring reminder came from. Guy Richardson, the competent director of local transportation for the ODT, formerly was president of Surface Lines.

• **64 from Philadelphia**—In Philadelphia the order abolishes two lines and curtails five others of the city-owned Philadelphia Transportation Co. Most of these are "luxury routes," and the 64 buses released by the restrictions will be used to good advantage on runs carrying war workers.

Most shocking to old-time Philadelphians and most sensible to the outside observer is elimination of Route C. For eight miles it traverses Broad St., the spine of the city. But it runs right over a subway and parallels two street car lines within a block. The route does serve the Navy Yard, which is a mile beyond the subway terminus, but shuttle system is planned in order to close this gap.

• **Pool—for Some**—It is plenty tough on the bus lines to cut down on services when everybody is calling for more facilities. With bus manufacturing companies on war work, there remains only one source of new supply. The order to cease making buses found many plants with a hang-over of odd parts; chassis here, motors there, bodies at the other place. It was finally arranged to allow the big builders to work up the usable units into complete buses. This will produce some 3,600 new vehicles, which will be finished around the first of the year.

But the curtailed cities haven't a chance of getting their hands into this pool. The 3,600 are reserved by ODT, which probably will assign them to war areas where transport problems are desperate. ODT retains control of the buses, can withdraw and re-assign them at will.

Jeffers: Dynamo

Rubber chief carries to Washington the impatience of the railroad president with the red tape of government.

Entry into William M. Jeffers's office in Washington is effected through the conventional three-motion operation: you (1) turn knob, (2) open door, (3) close door. That is fast enough for the national capital, inured to the measured tread and the dignified trudge even in wartime. But it seems a scandalous waste of time to the assistants Bill Jeffers brought with him when he moved from Omaha to become national rubber conservation director.

• **Hot at the Hinges**—Omaha is the headquarters of the regular Jeffers job, which is the presidency of the Union Pacific Railroad. There a swinging door divides the boss's office from that of his secretary. Its hinges are often hot to the touch and its pulsations set the executive tempo.

It reminds you of the man who cut four holes in his door for his four cats —because when he said "scat," he wasn't fooling. When Jeffers calls or thumbs the buzzer, he means it too. D. O. (Doc) Churchill, Jeffers's secretary, is accustomed to answer such summons like a man shot from a gun. The swinging door does not interfere with his trajectory.

• **Piledriver at Work**—On one occasion an outgoing vice president got a nasty bang on the nose from the incoming Churchill, since which time the door has been negotiated warily by the Omaha staff. Jeffers is a big man (height, 5′ 11″; weight, 225 lb.), and his home office is spacious in proportion. He works with the rhythm and force of a piledriver. When Doc Churchill springs through the swinging door at his end of the room, his ruled book is ready, his pencil cocked and sharpened, because the minute he becomes visible, Jeffers may start dictating across the intervening distance.

It might have been distrust in the agility of office help that would be assigned him in Washington, or it might have been the natural preference for doing a tough job with a staff geared to his speed. At any rate Jeffers took no chances, brought Doc Churchill and two others with him to the rubber conservation office.

• **Why a Railroader?**—When the appointment was announced, Washington skeptics asked, "Why a railroad man in charge of rubber when rubber is a vital necessity to highway traffic, the railroad's biggest competitor?" Reasons for this particular railroader become clearer by the minute.

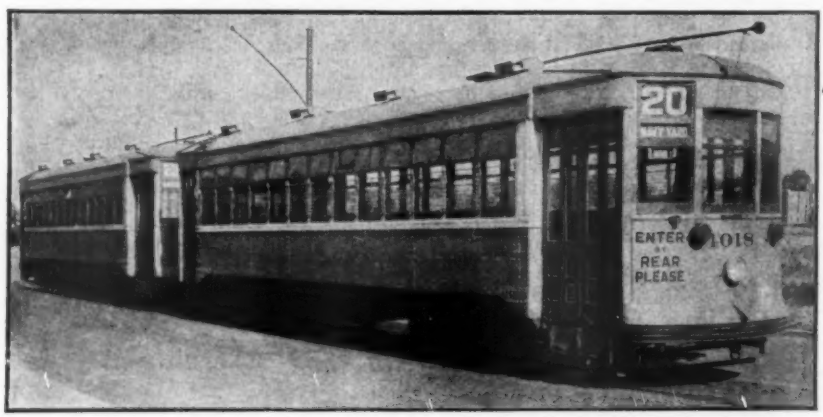
The Baruch committee report (BW-Sep.19'42,p15) revealed that the rubber snarl was about the worst in all Washington, that it could be untangled only by a single administrator, one hardy enough to drive through powerful interference. A rubber man would be suspect, would be an immediate target for congressional snipers who charge that business men come to Washington for the sole purpose of looking after their own skins or their own company interests (BW—Jul.4'42,p50). This attitude led the War Production Board to rule that its business men in important positions should not handle the affairs of their own industries.

• **Harriman's Suggestion**—These factors complicated President Roosevelt's choosing of a rubber dictator. Finally his old friend, William Averell Harriman, suggested Jeffers. It must have been a wrench to his self-interest since Harriman is chairman of the Union Pacific, and as president of the road Jeffers was needed to keep the heavy war traffic rolling.

At any rate Jeffers accepted the job as a call to war duty. He was duly sworn in as a dollar-a-year man in the Washington office of Sidney Weinberg. The latter is a partner in the New York banking house of Goldman, Sachs & Co. As an assistant to Donald Nelson, WPB chairman, Weinberg handles personnel and has gained renown as a glorified body-snatcher by wangling top-rank business executives into Washington war jobs. In making out Jeffers's employment form, Weinberg came to the question of education.

"I didn't finish high school," said the Union Pacific president. That touched Weinberg on a point of pride. "I never got as far as high school," he commented.

• **First Outside Dollar**—Jeffers looked at his induction documents with his broad grin. "You know," he said, "the dollar Uncle Sam pays me for this year's work



For the first time in 25 years, tandem trolleys are being used in Philadelphia to speed up movement of great masses from the Navy Yard as shifts change. They also are relieving the motorman shortage and may be placed on other runs due to the Office of Defense Transportation's bus curtailment order.

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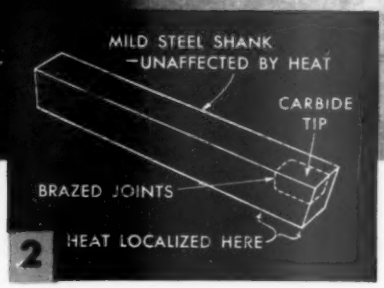

2

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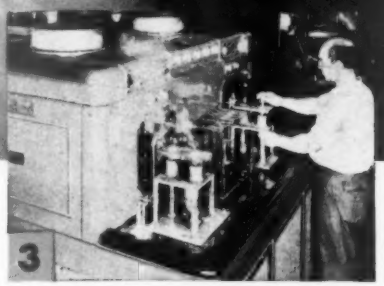

3

TOCCO Jr. machines are processing a wide variety of war materials such as burster tubes, shown above. TOCCO machines can be used for hardening, brazing, annealing or heating for forging or forming...war or peace-time products... by changing only the work fixture.

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will be the first dollar I ever earned that didn't come from the Union Pacific."

One great weakness of the business man in Washington is his fear of New Deal congressional investigation. A magnifico in his own corporation, the business man is terrified by the prospect of being harried and bullied by some Jimson-weed statesman who rants at "big business" for the benefit of votes back on the creek. Bernard Baruch and Charles G. (Hell-and-Maria) Dawes showed during the last war that the only defense against such inquisitors was to keep your hands clean and beat critics to the punch.

• **Morale Booster**—The technique was adopted by Jeffers soon after his appointment, and WPB morale has bucked up greatly in consequence. His ordeal was before the mighty Senate Agriculture Committee and involved the question of cotton versus rayon in military tires (BW—Oct.31'42,p19). The subject was loaded with dynamite since the committee is packed with southern senators who erupt emotionally at the very mention of the word "cotton."

Before Jeffers was summoned, one of his assistants was called before the committee. He returned to his desk pallid and shaken. Though he was forewarned, Jeffers reported to the cotton-rayon investigators with no rehearsal, advice, or predetermined strategy. As president of the U. P. he handles his own labor relations, and tussles with clever union lawyers have taught him many a verbal twist and hold. At the climax of the cotton-rayon free-for-all, Jeffers suddenly asked:

"Do I understand you gentlemen to say that I am to continue to hold up this [rubber] program for 60 to 90 days while tests are made?"

• **Took the Bait**—Senator McKellar swallowed the bait by replying, "So far as I am concerned, the answer is 'yes.'"

To Jeffers, the answer was definitely "no"—and he made it clear to the senators that he was going ahead with the use of rayon regardless of objections.

If the senators would examine the bushel of congratulatory letters received by Jeffers, they would discover how seriously their sectionalism slanders the war spirit of the cotton growing areas. More than half the mail was from the South.

• **Swelling Chorus**—A Mississippi garage mechanic wrote, "Hot Damn! That's telling 'em." The city hall "basement employees" of Jacksonville, Fla., said "You have given the answer most people want to hear in a manner that even a politician can understand." A Chicago cotton man exulted, "You are the first official to go to Washington in the last 10 years who spoke United States." A reporter thanked the rubber czar for enabling him to fulfill a 20-year ambition, "to get the word 'guts' into my newspaper." To a woman school teacher in Alabama, telling off the senators was "the best news we've heard in this section." A Memphis manufacturer declared, "I'm for cotton, but this war comes ahead of cotton."

The forthright way in which William Jeffers told off the Senate Agriculture Committee cannot be charged to the rubber czar's naivete. At 66 years of age, Jeffers hasn't any political ambitions; hence, when he was convinced that rayon production should be expanded for heavy-duty tire cord, the politicos didn't budge him.

Jeffers has been familiarizing himself rapidly with his new job. Other office occupants in the New Social Security Bldg. who are used to being called to the office of big shots are surprised to hear Jeffers phone, "Going to be there for a minute? I'll run down and see you." His first move on taking over as rubber administrator was to visit tire plants in Akron. He talked to everyone, but not "from the company presidents down"; it was from the rubber workers up.

• **The Jeffers Technique**—These two points illustrate essentials in the Jeffers method. It is only a war crisis that can hold him to a Washington desk. He is still president of the U. P., as the distant trainman guilty of a rear-end collision or a derailment soon discovers. But he has to run the road by mail, telegraph, and phone during whatever free time he can find.

His favorite office is that aboard his "business car" (you don't call it a "private car" because that carries a suggestion of luxurious ease). Subordinates estimate that Jeffers has averaged 75,000 to 80,000 miles annually in that car for the past 25 years. In his pursuit of operating improvements, he says, "When a machine isn't working right, ask the man who runs it." Thus if a U. P. locomotive balks, he doesn't depend on some white-collared superintendent in the general offices to supply the answer; he goes to Bill Jones and Henry Brown, the fireman and engineer of that particular engine. His faith in his workmen was exemplified three years back when he had a traffic survey made by a station master, an engineer, and two freight conductors (BW—Oct.14'42, p28). Their recommendations resulted in a substantial increase in business.

• **Card Man**—Jeffers likes the officials of the railroad brotherhood unions, and few of the contracts he negotiates have ever been questioned. In testifying once before a labor hearing in Chicago, he declared that if his job as president became too irksome he could always go back to his old work, that of a telegraph operator. He is a member of the telegraphers' union and holds card No. 1 for the U. P. system.

His telegraph background may have influenced his style in communicating orders or answering correspondence. He dictates with a machine-gun precision. "I figure," he remarks, "that the fellow who gets the letter is just as busy as I am." This characteristic has been carried over to his work in Washington. A typical telephone conversation runs, "Jeffers. Yes. Yes. No. OK, then do it that way. G'bye."

• **Railroader's Railroader**—In background and performance, Bill Jeffers is the kind of president that old-time railroaders dream about. The elder Jeffers came to this country with the tide of Irish immigrants whose backs and biceps sweated in the rail systems and who tied the sprawling United States of post-Civil War days into a real unity. He labored as a section hand on the Union Pacific, later became section boss. They say the son cut his teeth on a fishplate. As U. P. president he works with old-fashioned disregard of the clock. Jeffers gets to his desk at 8 o'clock and stays there till he is through. In Omaha or down the line, he always is on the job at 9 o'clock Sundays and holidays. This constant check and attention to detail reflects a favorite saying:

"You can't use an eraser on the railroad business. Mistakes mean loss of lives."

• **No Grudge**—This supports Jeffers's inflexible discipline, enforcement of which often involves a searing outburst. For a minor crisis a simple expletive may suffice, but serious blunders provoke more imaginative flights. Yet, just as the victim is about ready to crawl under the desk and hide, he indicates that personal feelings aren't involved by remarking:

"That's all. Let's go to lunch."

Perhaps you are wasting scarce alloying elements such as nickel, manganese and molybdenum by using higher alloy compositions than you actually require.

It is a fact that many users of stainless steel have been "over-buying" in alloys,—confusing *quantity* of alloy content with adequate *quality* and equal workability of the stainless material.

You may find that the *best* stainless tubing for your needs is *Pittsburgh Seamless* of straight Chrome analysis, such as the types 410 and 430, made in a wide range of wall thicknesses and in larger sizes than elsewhere available up to 10¾" O.D. These analyses and sizes may not only increase the capacity and efficiency of your installations, but will also produce comparable results in fabrication, installation and operation.

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New Meat Crisis

Desperate situation in Portland re-emphasizes fact that record hog crop is slow coming to market, rationing is nearer.

All new developments in the meat and livestock situation are dwarfed by the fact that the housewife, almost anywhere in the U. S., had increasing difficulties in finding the cuts of meat she desired (BW—Oct.24'42,p17). In some places, the meat shortage actually constituted a crisis, and an OPA order cutting civilian beef quotas from 80% of 1941's last quarter down to 70% was an index of how Washington sizes up the over-all prospect.

The Share-the-Meat program (voluntary restriction to 2½ lb. of meat a week) was gathering momentum. Many experts feel this is destined to be only a stopgap until someone can devise a method of card rationing, although some of the packers still are convinced it can avert formal rationing.

• **Portland's Troubles**—Hotspot of the moment is Portland, Ore. Here the population has increased 27% since 1940 from the influx of shipyard workers. Meat production is divided roughly 60-40 between two big packers on the long end and five little local packers on the short end. Over 90% of all production of the city's two big federally inspected packing plants—Armour and Swift—is being taken by the government, leaving practically nothing for sale to civilian trade.

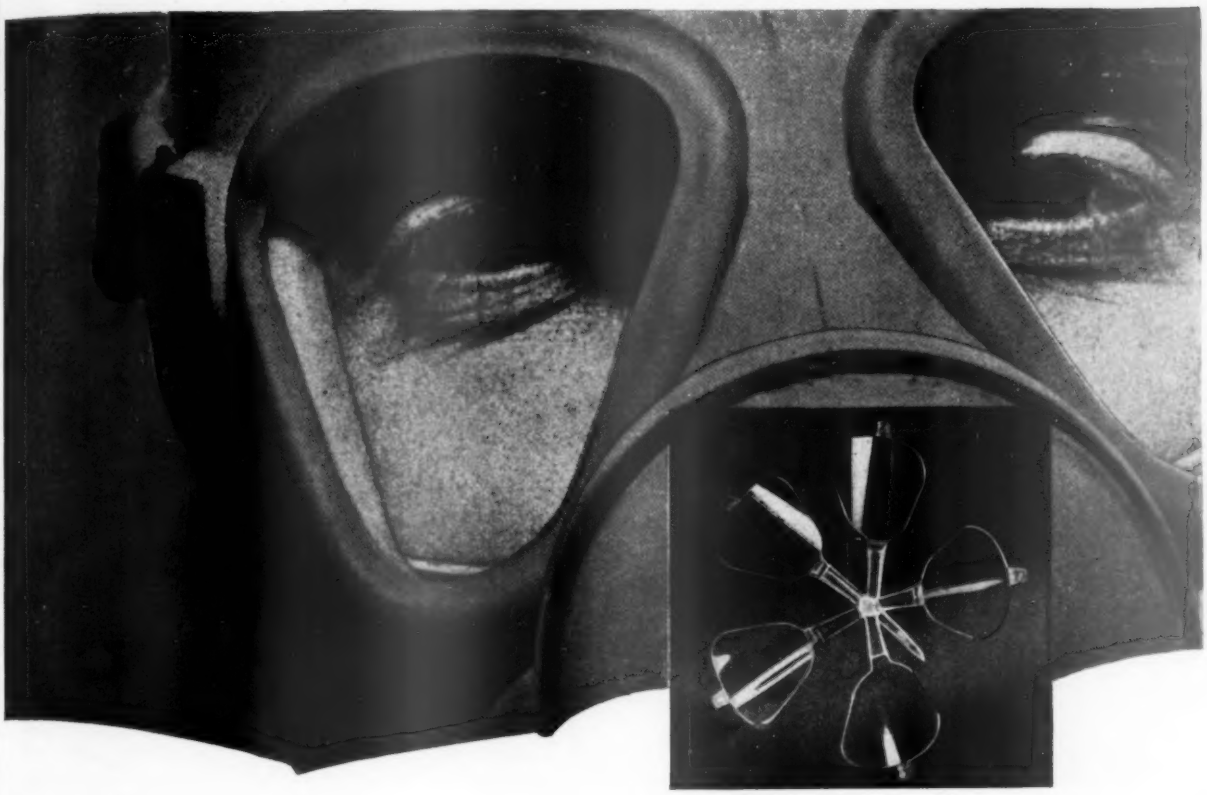
The small local packers, harassed for meat to supply their customers, proceeded to use up by mid-November their OPA-set slaughter allowances for the rest of 1942, were accordingly forced last week to shut down or operate at snail's pace.

• **Surpluses in Other Spots**—Elsewhere on the Coast are nonfederally inspected packing plants whose dealers' demands have actually shrunk through population shifts. But because these packers may not ship across state lines, they are no good to meat-hungry Portland. So fresh and cured pork, beef, veal, and mutton have practically disappeared from local butcher blocks, and Portland papers carry news stories quoting the price of horse meat ranging from "horseburger" at 10¢ per lb. to roasting loins at 14¢.

On Thursday, when this local meat famine reached a peak, Secretary of Agriculture Claude R. Wickard announced—what must have sounded to Portlanders like sheer fantasy—that he has completed the task of setting up the machinery to cope with any glut arising from too many hogs coming to market in the months just ahead. If hogs should reach the stockyards in floods so

Here was the job!

U. S. military gas mask lenses must be pear-shaped, dimensioned accurately to 1/64″, curved to meet exact specifications. Center panel thickness—.100″ minus .020″ plus nothing. Outer 1/8″ wide edge thickness—.090″ minus .010″ plus nothing. 5 Lumarith Plastic lenses to a sprue—no finishing necessary.



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2. We put you in touch with the available custom molders best equipped to mold the piece.

3. The custom molder gives you a quotation.

4. We work with the molder in furnishing the formulation of the Lumarith Plastic selected, that suits all factors of production technique . . . in relation to dies, heat, pressure, etc.

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great that the packers could not slaughter and dress them, Secretary Wickard's new mechanism will stop shipments.

• **Hogs Held off Market**—This potential glut is no pipe dream. It is all too probable for comfort. This fall's hog crop is a world-beater. Nobody actually knows whether the nation's packing plants, already creaking from maintenance delayed by low priority ratings, can slaughter and dress the 62,000,000 hogs expected when eventually they really start rolling to town. Prospects would be more cheerful if the crop had started to market at the normal time in October and had continued in the steadily increasing flow that is normal.

Also, last spring's pigs are currently being held on the farms, and the longer they are held back, the greater will be the flood when eventually the farmers begin shipping them in quantity. The government has begged for heavy, lardy hogs. Consequently 500-lb. animals today bring top prices instead of the 200-pounders that are usually in demand for tender young pork, and the animals now reaching midwestern stockyards are running over 250 lb. average weight. This is 15 lb. to 20 lb. over a year ago, and is 25 lb. or more over what might be called normal weight for this early in the season.

• **Four-Legged Harvesters**—Moreover, the weather has held back marketings because it has been ideal for turning the fattening hogs into the cornfields, to be followed by the brood sows and pigs that mop up what's left. Thereby the hogs do the harvest work of hired hands who have disappeared into uniform and into munitions factories.

An even more powerful influence in keeping hogs back from market is the corn-hog ratio, right now the most favorable ever recorded. The Corn Belt rule of thumb is that 10 bu. of corn produces 100 lb. of hog. Therefore, when the farmer can get more money for 100 lb. live-weight than for 10 bu. of No. 3 yellow corn, it pays him to market his corn crop by converting it into pork.

• **Profits from Feeding**—At the moment, 100 lb. of live hog brings as many dollars as 18¼ lb. of corn. (Year ago the corn equivalent was 14 bu., two years ago 9.6 bu.) Hence, it's a safe bet that the farmer will keep right on feeding corn until his hogs won't put on profitable weight.

When eventually the dammed-back hog supply begins moving to market, probably in the usual peak months of December and January, Secretary Wickard may indeed have to invoke his newly perfected hog embargo. Farmers are genuinely alarmed at the idea.

• **Dangers Involved**—Fat livestock is a highly perishable commodity, and when it has to go to market, it has to go. Moreover, there are always possible local emergencies. If hog cholera breaks out down the road, cautious Farmer Jones sends his finished and nearly-finished hogs to market before they can be exposed. If Secretary Wickard tells him and enough of his colleagues that they can't ship, serious repercussions may be expected in the agricultural vote.

Even though farmers are holding back their hog crop to fatten, that share of it which is currently coming to the stockyards adds up to the biggest marketings on record. Animals slaughtered under federal inspection are approximately 75% of all animals slaughtered. Government reports show that federally inspected hog slaughter for the first ten months of 1942 reached 42,096,000 head—a small increase over 1923, the previous record-holder.

• **Big but Disappointing**—The October kill was 4,218,000 head, a tremendous volume—but the trade was disappointed because it had counted on getting 5,000,000. Packers were expecting more than 6,000,000 hogs to slaughter in November, but it now seems apparent that this figure will not be attained.

D. of A. statistics show upward trends in other animals slaughtered under federal inspection. October cattle kill was 1,280,000, and the ten-month total was 10,347,000—more than 15% above last year, and the first time this statistic ever passed 10,000,000. Similarly, never before September 1942 were more than 2,000,000 sheep killed in a single month. The September record hit 2,222,000, and October promptly surpassed it with 2,344,000.

• **Over-All Gain is 15%**—Total sheep slaughter during ten months of this year reached 17,324,000—better than 2,000,000 head above the previous record set in 1938. All told, meat production has been running approximately 15% ahead of 1941.

Livestock population has this year reached all-time highs. Hogs on farms Jan. 1, 1942, were 60,500,000 head, the spring pig crop ran 25% above the previous year, and the fall pig crop is expected to be 22% larger than last fall. Cattle population stood at an all-time high, 74,600,000 head. Stock sheep population, 49,000,000 head, was the largest in more than 50 years, though there are indications that this has now started downhill.

• **Feed Shortage Feared**—Everyone in position to appreciate these figures agrees that the farmers' achievement has been remarkable, that they have risen to the need for more livestock in the face of a serious labor shortage. Biggest question mark ahead is the feed supply. The Corn Belt Farm Dailies, bible of

APPLE PARTY

Decidedly not just a stunt, but a real "life-saver" to harried apple growers in the Hood River area of Oregon, was the Portland Chamber of Commerce "Apple Special," which unloaded 700 Portland business and professional men and their families early Sunday morning Oct. 25 to help harvest the Spitzenberg apple crop. Another 700 came by automobile. By nightfall, about 44,000 boxes of apples had been picked, and the harvest, said farmers, "had been carried over its critical stage."

A Help on Your Job... Day and Night
Salvaging Man-Hours Now Wasted

Chewing Gum's Blessed Relief for Tense Nerves, "False Thirst," Craving to Smoke, Helps Workers Feel Better and Work Better Three Shifts a Day!

In peacetime, chewing gum has been considered just a confection. And it used to be easy to get. It's still a confection but it's doing such a useful job in the war effort that the demand has skyrocketed and now it is not so easy to get.

Everyone is saying, "Why can't we get more gum?" The answer is—demand. The Armed Forces use chewing gum to relieve thirst. War industries use gum to help solve the "no smoking" problem. Where conditions make it impossible to permit smoking, chewing gum helps to relieve the craving and saves many "times-out."

And too, both the public and workers in war plants find gum brings blessed relief from nervous tension, always a product of war and high-speed war production.

And tests in many war plants show that gum helps workers fight false thirst—the dry mouth that sends them on "sip trips" to drinking fountains when their bodies do not actually need water. This means that chewing gum is helping production managers salvage time now wasted, and put it against the Axis.

We are making all the gum we can. Meanwhile, the Japs have Singapore, Malaya and Borneo where much of our raw materials came from. And, sugar is rationed too. We are trying to get our gum to the places where it will do the most good. If you have a production problem such as false thirst, nervous tension, dust, monotony or "no smoking," we will do our best to get the gum to your workers somehow. Through your canteens or the regular stores that serve your workers.

We have published a report on our tests in war plants. It is entitled "How Chewing Gum Helps Your Workers Feel Better and Work Better." If you want a copy, write for it today to the Wm. Wrigley Jr. Company, W-208 Wrigley Bldg., Chicago.

Wrigley's Spearmint Gum—A Help on Your Job

midwestern stockmen, forecasts corn cribs will be empty before next harvest. A typical estimate shows that Iowa, on the basis of 1942 feed production and 1943 livestock requirements, will have to ship in 45,000,000 feed units for 1943, equivalent to as many bushels of corn.

Adverse influence on prospective beef production has been the combination of high prices for grass-fed cattle and the heavy military demand for this grade of beef. Consequently, packers bought the Western animals for slaughter, and feeders were reluctant to take a chance. This trend has recently reversed itself, however. Top fat cattle have been bringing $17.50 at Chicago with a real scarcity of the top grades. So the feeders have of late been buying thin stuff in the hope of getting aboard the gravy train.

● **In Favor of Feeding**—Another influence that has upset their earlier caution has been their realization that they have huge volumes of hay, silage, and other rough feed that no other animals can use to equal advantage. A recent survey in Northern Illinois showed grass steers and heifers rolling in from Western ranges by the trainload, and the feedlot owners themselves afield in Nebraska, Kansas, and Oklahoma loading up with yearlings.

Stockmen are never satisfied with prices, of course, can always find something to grouse about. Currently they are a bit sour because Chicago hog prices fell off to below $14 last week. But even the Corn Belt Farm Dailies admit that present prices are all right if they hold, that the scarcity of stock-farm labor is the real bottleneck of livestock production.

Meat "Extenders"

Everybody's talking about them, including the packers, but many bright possibilities also have scarcity trouble.

Americans are accepting the national meat shortage as though Washington officials, with the cooperation of the country's meat packers, had extended the Lenten season to everybody and for an indefinite period of time. Housewives are studying "meat-substitute" recipes of their favorite women's pages to prevent the cut to 2½ lbs. of meat per capita, per week, from causing a loss in vitamins or family appetite appeasement. And restaurants, anxious to avoid sugar and coffee woes scaled to the proportions of the main course, are observing meatless Tuesdays in three of the nation's largest cities (New York, Los Angeles, and Philadelphia).

● **Alternatives**—The Meat packers have

One died from SHELL SHOCK!

THESE two armor piercing shells *looked* perfect . . . until they were shock tested in three successive water baths . . . cold . . . boiling . . . cold. One *was* perfect. The other cracked . . . was rejected as unfit to fight.

Heating and cooling these baths is just one of countless ways in which General Electric heating, refrigeration and air conditioning are serving war industries.

In recent months, industrial refrigeration and air conditioning have made great strides. Equipment is more compact, more flexible. Temperature and humidity are controlled more exactly. Result: more and better fighting equipment...in shorter time.

After the war, improved process refrigeration should help to make many peace-time products better . . . at lower cost. And vastly improved air conditioning will provide greater comfort in more and more hotels, offices, stores, theatres, homes . . . even in cars, boats and planes.

The wide experience that General Electric engineers are gaining in war work today is your assurance that they will be ready with finer and more efficient refrigeration and air conditioning equipment for the needs of post-war America.

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Industrial Refrigeration by

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jumped in to help promote alternatives, but are being careful to dub them "meat extenders" rather than substitutes, lest consumers carry troublesome substitution theories over to the days of peace and plenty.

The meat scarcity has been accompanied by increased sales by all producers of "meat extenders," though they still attribute such increases largely to mounting purchasing power. Normally this would add up to a rosy future for America's fish markets and cheesemakers, with the macaroni industry getting ready for a red letter year, and poultry dealers looking forward to something like Thanksgiving every Tuesday if not oftener.

• **But Misery Has Company**—But war is no respecter of industries. And fisheries and dairies can't rejoice over the troubles of the meat industry when they themselves are harried by some of the same problems—and many others. Fish and cheese interests, particularly, are slow to celebrate the day of rising demand for their products. And for good reason: There is a fish shortage now, and a cheese shortage is imminent.

This year's entire packs of salmon, sardines, Atlantic herring, and mackerel were frozen by a War Production Board order (M-86-b) in May to assure filling the government's needs—probably 2,500,000 cases of an estimated salmon pack of 5,400,000 cases, and 50% to 66% of sardine, herring, and mackerel supply.

• **Bad Fishing**—New England's fish catch is about 50% of normal; while there are plenty of fishermen, they can't get boats and equipment. And fishermen coming into Boston markets from Delaware and Southern waters can't show big hauls while the submarine menace keeps them within the three-mile limit. This scarcity, plus increased demand, has resulted in soaring prices (last week halibut sold for 45¢ a lb., salmon for 55¢), and fishermen are netting about $300 to $400 a week while captains make about $15,000 annually.

In Chicago, where, as in New York, demand for fish has doubled since the coming of voluntary meat rationing, current supplies are inadequate and prices are up 40% on better grades of fish. The Middlewestern market lost out on the fish supply from northern lakes this season because of Canada's tight labor situation. Weather permitting, a haul of whitefish and trout from the Great Lakes, where older non-draftable men do the fishing, will reinforce Chicago's supply.

• **Uncle Sam Wants Cheese**—Dairymen aren't too hopeful about cheese being able to fill the protein gap left by a fish and meat shortage. Currently the government is taking 5,000,000 lb. a week, a third of weekly production. In 1941, production hit an all-time high of 700,000,000 lb., but an estimated 900,000,000 lb. will be reached in 1942. This still won't mean a field day for civilian distributors in view of government requirements, estimated at 500,000,000. (Swiss cheese, however, is left to civilians who used 52,000,000 lb. this year, compared to a normal 42,000,000 lb.)

As in many another industry, dairymen fear they cannot continue to take advantage of increased purchasing power, for production is already falling off with both farmers and laborers moving into the army and war industries. Biggest worry voiced at the Wisconsin dairymen's convention last week was the loss of skilled cheesemakers, of whom there are only 3,000 in the U. S.

• **Poultry Prospects**—All of this scarcity would seem to leave a bigger gap in the nation's diet than poultry could fill. According to the Department of Agriculture, total per capita poultry supply in 1943 will be greater than in 1942, which is running 15% to 18% larger than in 1941. But prices are 18% higher than last year and per capita consumption has gone up from 20.2 lb. to 20.6 lb. (1935-39 average, 18.7 lb.). Chicken is a favorite in boom towns; for instance, a frozen foods packer reports eight to ten times previous sales of frozen chicken in San Diego.

• **Macaroni Heaven**—Macaroni producers are about the only meat substituters not afraid to build up demand by helping food columnists to promote the meat-extending characteristics of their product. The industry isn't worried about productive capacity, labor, and supplies to meet its current unprecedented demand. Transportation is the only difficulty on the horizon, and it can probably be met by storage since macaroni keeps indefinitely without deterioration. As an alternative to combination with cheese, dietitians are suggesting the use of nuts with macaroni to add protein content. Meanwhile, butchers and their customers are getting better acquainted with such relative strangers to the American dinner table as sweetbreads, pork liver, lamb liver, brains, tripe, oxtails, heart, and pigs feet. Some of the big chain stores are carrying these specialty or "fancy" meats (called offal in the packing industry) for the first time in history, and housewives are learning how to cook them. The government is helping in this with posters and booklets to be distributed by 2,000,000 block leaders of the Office of Civilian Defense.

RAYON PACKING

When war constricted the supply of flax for the square braided packing used in hydraulic stuffing boxes, Du Pont got to work on viscose rayon as replacement material. Now it is supplying several packing manufacturers with rayon "tow." They braid it into square ropes, impregnate it, smooth it on a coiling plate, and pack it in flat coils ready for the maintenance mechanic.

Ice Men Get Hot

By pooling delivery and sales service, if permitted, they hope to steal a march on mechanical refrigerators.

Principal subject discussed at the annual meeting of the National Assn. of Ice Industries in Chicago last week was how to lick delivery problems without locking horns with the Office of Defense Transportation and the Department of Justice.

• **Thaw Sought**—Federal antitrust laws make it precarious for competitors to pool sales and delivery services. Deliveries already have been cut 25%, and call-backs and special trips eliminated. But instances were reported where 40 miles of truck operation were required for deliveries aggregating one ton of ice (normal ratio should be from 5 to 8 miles per ton).

At the convention's end, arrangements had been worked out to expedite experiments for pooling delivery services among competitive ice manufacturers in certain key cities. This plan, blessed by ODT, will be submitted to WPB for approval under Section 12 of the Small Business Act (BW—Jun.6'42, p5).

• **Labor Factor**—The ice industry's labor problem is acute because deliverymen, typically young and husky, are fair game for Selective Service. Add to that the fact that drivers' wages are frozen at about $35 a week, in comparison with high pay offered by war industry plants.

When an ice manufacturer loses a

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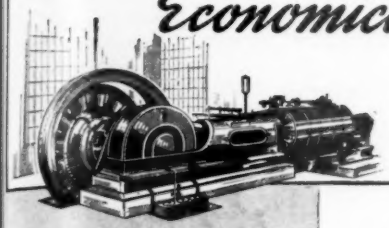
ON LAND—ON WATER



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FOR more than seven decades the Skinner Engine Company has been building steam engines exclusively. The performance of Skinner Engines has been so outstanding that they have achieved the reputation of being "the most economical steam engines ever built."

On land, Skinner "Universal Unaflow" Steam Engines, horizontal or multi-cylinder vertical, drive generators that furnish electricity for light and power to many of the nation's best known hotels, hospitals, department stores, office buildings and diversified industrial and institutional plants. By generating their own electric current instead of buying it, these owners have saved millions of dollars in power costs. Other Skinner Engines drive compressors, pumps and blowers for refrigeration and air conditioning installations.

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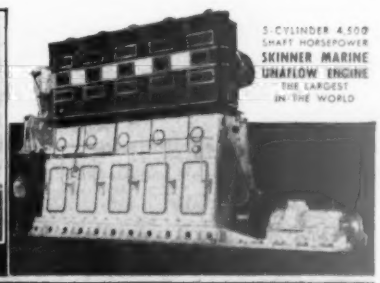
Dependability and permanently maintained economy are inherent characteristics of Skinner Poppet-Valve Unaflow Steam Engines, and are largely responsible for the fact that more than 25% of all orders received are repeat orders. This is not only a high tribute, but also is testimony of complete satisfaction.

Our production facilities, at present, are devoted entirely to building Skinner Unaflow Steam Engines for the war program.

FREIGHT CAR AND PASSENGER FERRYBOATS



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ARMY (E) NAVY

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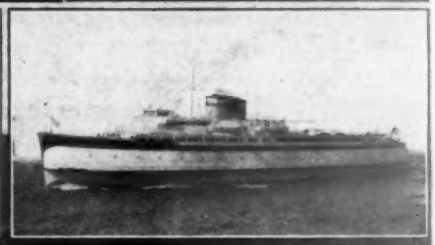
TUG BOATS



PASSENGER AND AUTOMOBILE FERRYBOATS

SKINNER ENGINE COMPANY FOUNDED IN 1868 ERIE, PA.

driver, he also loses a salesman with some training and experience. Many of the country's ice suppliers also sell ice refrigerators. The industry has consistently pushed the sale of top-quality ice refrigerators in order to place their service on a more equitable competitive basis with mechanical refrigerators.

• **Increased Tonnage Seen**—With some solution to the delivery problem and "a nice, long, warm summer," ice men expect next year's tonnage to be substantially more than the 33,500,000-ton level of 1941 (which does not include icing railroad refrigerator cars). Manufacturers in certain wartime boom towns have been hard pressed to satisfy the increased demand for ice this year, but supplies over the country generally have been adequate.

Ice men point out that in recent years their industry has been able to make more ice than it could sell, and the present steady increase in sales is taking up this slack. They are not yet feeling the anticipated boom in ice sales due to obsolescence of some of the country's 12,000,000 or more mechanical refrigerators. But, with service men getting scarcer and repair parts practically unobtainable, they serenely await the glad moment when many households will be obliged to change over to ice refrigeration.

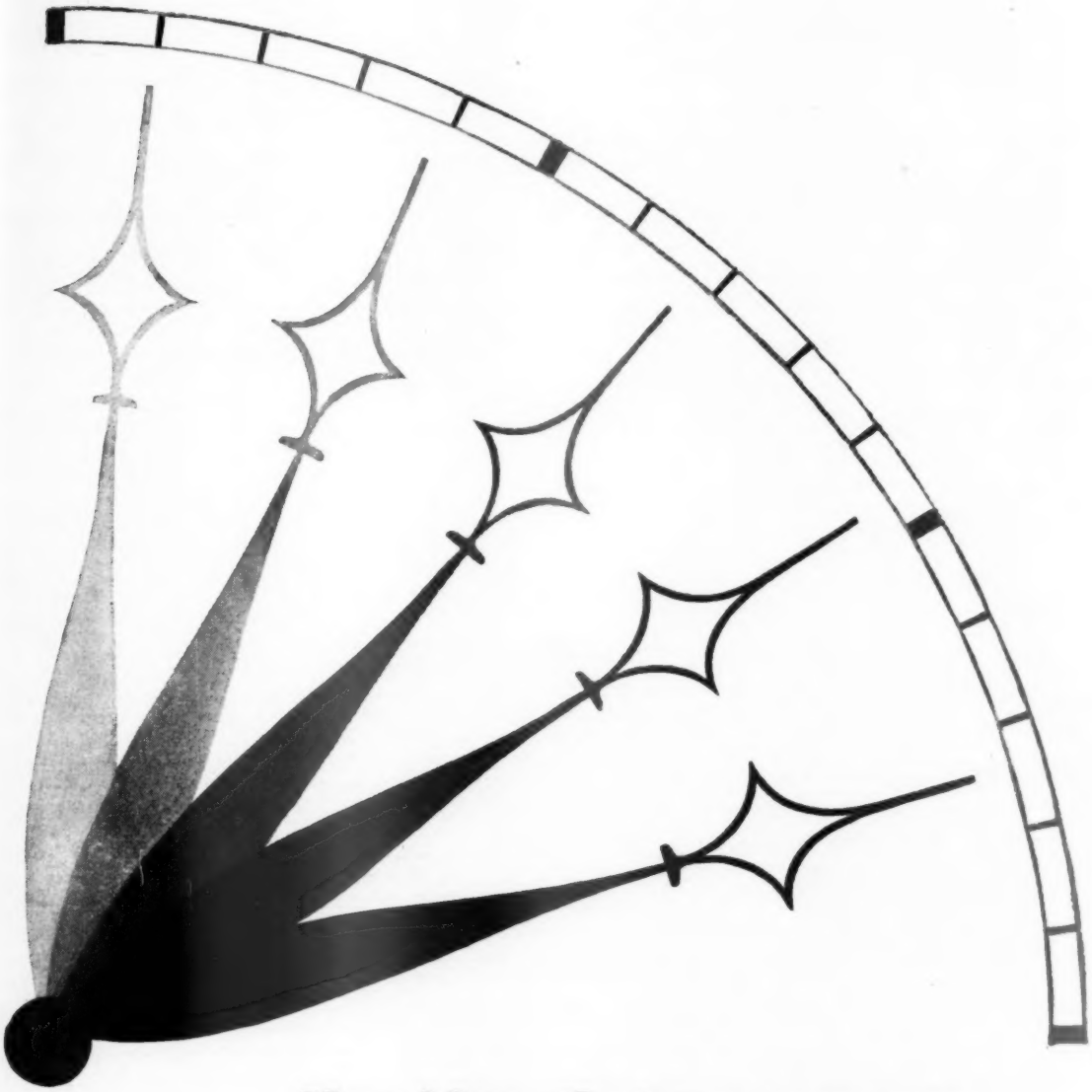
• **WPB Sets Pace**—How well the icebox manufacturers will be able to meet this demand was predetermined last week by WPB in an order limiting further production this year to 107,300 units, next year to 300,000. Use of iron and steel is limited to 15 lb. per box for the remainder of this year, and 6 lb. next year.

Ice refrigerators displayed at the convention testify to manufacturers' ingenuity in conforming to steel restrictions. In a typical Victory model with capacity of 5 cu. ft., the steel content has been reduced from 175 lb. to 10 lb. Masonite, wood, and, in some instances, glass are used in its place. Tests indicate that these new refrigerators will give equally good service and are as durable as standard models.

• **Lower Price**—A Victory model priced at about $79.50 would sell for about $92 if made of steel. Although Masonite itself is more expensive per square foot than steel, the assembly cost is enough lower to make up the difference.

Last April Sears, Roebuck & Co. attempted to produce a Masonite ice refrigerator that could be converted into a mechanical refrigerator after the war, but WPB turned thumbs down, because only manufacturers who had made ice refrigerators in 1940 could get a quota for making them now. But Sears is hoping for WPB approval of a new line of low-cost Masonite units using very little steel.

• **Coldspots Converted**—When mechanical refrigerating units were banned



New ideas that can save you

Precious Production Minutes

EVERY minute saved today is worth its weight in gold. That's why Shell men are being kept on the jump. They have ideas that can save those precious minutes.

These ideas have been proved and tested. They have solved the toughest kind of production problems for busy executives like yourself. No, Shell men don't know *all* the answers. But they've stepped up production, improved products and operating methods in practically every type of industry. And every *new* problem solved has added to their already large reservoir of experience.

• • •

Why don't you draw on this experience? Chances are the Shell man has already licked a problem close enough to yours so that his views can prove valuable to you. Why not make sure by consulting with the Shell man today?

OIL IS *Ammunition* -USE IT WISELY

SHELL

SHELL *INDUSTRIAL LUBRICANTS*

★ ★ ★ ★ ★

Sears was stranded with several thousand all-steel Coldspot cabinets on hand. It converted these to iceboxes and marketed them through the firm's larger retail stores at $80 to $90 (compared with $125 to $130 for the standard 6-cu. ft. model). The purchaser also gets a "Coldspot Bond" which entitles him to purchase a Coldspot electrical unit as soon as any is available.

METAL-SAVING PLASTIC

Not quite three months have gone by since Hercules Powder Co. of Wilmington, Del. proposed to "replace as much as 60,000 tons of natural rubber" with "ethyl rubber" (BW—Aug.29'42, p53). This week the company announces its participation in the development of "a new plastic composition which can replace steel or other metals in many uses." The new material, yet unnamed, is a composite of paper and Vinsol (an inexpensive and plentiful thermoplastic resin extracted by Hercules from pine rosin) molded under pressure and heat.

Direct credit for the development goes to the Patent & Licensing Corp. (subsidiary of the Flintkote Co.), 30 Rockefeller Pl., New York, which has long been experimenting with combining paper and cellulosic paper fibers with resin. First application to go into production is a 3-in. pipe which Federal Electric Co., Chicago, has taken over as a replacement for steel pipe in seismographic oil field exploration. Future projects range from automobile license plates to air conditioning ducts to light I-beams and U-sections normally made of steel. The material is less than half as heavy as aluminum, promises to withstand temperatures above that of boiling water.

STEEL MILL TO SHELL PLANT

In 1907 the old Onondaga Steel Mill, "somewhere in the Northeast," shut down and began to gather cobwebs in its capacious interior. It remained closed right through the first World War I and promised to stay that way throughout the second.

This year, however, United States Hoffman Machine Corp., pioneer builder of clothes pressing equipment, took on a war order for high explosive shells.

Since space in the main Hoffman plant was at a premium, Works Manager A. W. Bennett looked over the Onondaga Mill, decided that its steel framework could be cleaned, and the whole structure readied for operation more quickly than he could get priorities on building materials for a new plant. Upshot is a thriving shell production center, fully equipped with modern forging, heat treating, and turning facilities, already achieving a high record.

Why Absenteeism

Cleveland WMC studies rise in number of workers who knock off for day. Unions can help, but big stick is needed.

One of the most troublesome problems currently being thrown into the laps of labor-management production drive committees (BW—Sep.5'42,p78) is a time-worn cause of kitchen police duty in the Army—absent without leave. Unlike the Army, war industries have no K.P. assignments to hand out to curb A.W.O.L. Leading production executives have begun to register a strong conviction that here is one responsibility that labor unions, particularly those with union security or closed shop contracts, can and must assume.

• **Search for Remedies**—Alarmed by persistent and apparently increasing absenteeism, the War Manpower Commission's Cleveland regional office, directed by Robert C. Goodwin, has been surveying this problem in an effort to isolate causes and indicate possible remedies. Although final results have not been tabulated, the survey has progressed to the point where Goodwin acknowledges that "We've got to find a cure." Both labor leaders and management cooperated in gathering data.

The absentee ailment seems to follow a definite pattern. Although normal absences from work that could be laid to illness or family matters can be placed at 2% or 3%, representative war factories have had absences of 7% and 8% and some as high as 10%.

• **Easing the Pressure**—Indicated major cause of voluntary layoffs is the longer work week. Goodwin said both men and women seem inclined to decide that their individual efforts won't be missed much—and so they take time off to rest, go to a movie, or attend to personal matters. The largest number of unjustified absences seems to occur the day after pay day. Questioned about this, workers have replied that there's no sense in making good money "if we can't get a few hours off so we can spend some of it." For this attitude they can find support in the argument of some labor leaders that workers need an occasional day off to take care of domestic affairs and personal needs.

• **Variety of Reasons**—Some of the worst offenders are said to be women, who feel that they are fully entitled to take a day off now and then to go to the beauty shop or buy a new dress. Many don't hesitate to telephone a report of illness in such cases, and others just don't bother to check in at all. Some of the persistent male absentees like to fish or hunt.

Still other absences result from the

COMICS FOR MORALE

Long a successful advertising medium, dramatized comics now have a job of selling safety and morale to war workers of Waldes Koh-I-Noor, Inc., a peacetime zipper maker (Kover-Zip), Long Island City, N. Y. Brainchild of Ralph Weinbaum, vice-president of Grey Advertising Agency, Inc., Waldes Warrior deals with specific problems, portrays authentic characters and scenes. Current problems and grievances will be covered in the tabloid which consists of four pages (each 12 by 15 inches) of colored comics. Contributed by Weinbaum, the comic strip idea was implemented by anonymous King Features' artists who did their part at cost, as did the engraver and printer. The idea, which has the blessing of the War Production Board, is open to management as it has not been copyrighted.

difficulty of gearing new workers and new departments into established plant operations. When workers are not kept busy, they are apt to lose interest, figure they can take time off without endangering their jobs.

Drinking on pay day, or the day after, then taking a day or so to get over a hangover was found to be a frequent explanation of absences. However, much such action might be normally expected of people who work long hours and make good money; one Cleveland company decided that it wasn't to be tolerated in a war emergency. So it got tough and demanded cast-iron excuses for all absences. For example, a worker claiming illness was required to submit a physician's certificate. The union immediately objected, charging the company was "too arbitrary," and the rules had to be softened. Another deterrent to the success of the plan was the fact that most workers nowadays aren't afraid of being fired, being aware of the well advertised shortage of skilled help.

• **Worker Committees Assist**—Goodwin reported that a number of plants had found a partial solution to the problem by taking it up with labor-management committees. Checkups on absences by committees of workers, supported by powerful patriotic appeals, resulted in marked improvement, but many production men believe that this tactic soon would lose its effectiveness through repetition, and that plant attendance eventually will have to be enforced by a government regulation "with teeth in it."

Some unions have tried to correct absenteeism by special recognition for workers with perfect attendance records. In one instance, the Congress of Industrial Organizations' United Electrical, Radio, and Machine Workers Union has planned a ceremony for Dec. 6 with awards for members having unbroken work records since Pearl Harbor. A few managements have offered bonuses for such records. One of the most elaborate incentive plans of this type, designed to curb absences, is that just introduced in Seattle by the Webster-Brinkley Co. Under the company's "time-clock jackpot" plan a strict record is kept of every employee's attendance on a point basis, and winners are awarded war bonds and stamps. The contest plan is set up to stimulate interdepartmental rivalry.

• **Needed: Big Stick**—So far, there seems to be no general agreement on a specific cure for low attendance. Both labor and management officials have begun

AMERICAN INDUSTRY AT WAR—An Inventory

An important special section reporting the story of what American industry has accomplished during our first year of war . . . what it is doing today to help the United Nations win the war

IN THE NEW YORK TIMES

SUNDAY, JANUARY 3, 1943

★

Here is the report America is waiting for . . the story of what American industrial genius has accomplished in our first year of war . . . what it is doing every day to help bring the war to a swift and victorious conclusion.

A special staff of editors and reporters has been at work on this assignment . . . digging for the facts wherever they are—in Washington, in Detroit, in Dallas, in the Pacific Northwest, in Los Angeles.

They will work right up to the deadline . . . to assure that the report the American people get will be the whole story, accurately and reliably told up to the last minute before publication.

Backing them up are all the tremendous news resources of The New York Times, which regularly publishes more news than any other publication in the world. Americans everywhere will welcome this report, knowing that in it they will find enterprise and authority.

Covered in this report will be the story of big business and little business; the story of manpower, the story of accidents and their prevention; the story of training people for war work; the story of industry conversion from peacetime production to war production; the story of ship production and plane production, munitions production and armaments production; the story of management; the story of labor; the stories of specific industries—steel and chemical and food; the story of women in war industry; the story of science; the story of finance; the story of war production in all the United States; the story of the war effort in Canada.

For executives all over the country concerned with or affected by the war, this section will be must reading. With a circulation well over 800,000, including leaders in American life in over 10,000 cities and towns all over the country, the section offers an unusual opportunity for advertisers with a story of war accomplishment. If you do not receive The New York Times regularly, make arrangements with your newsdealer now to reserve this issue for you. Get in touch with our advertising department regarding available space, rates and other details.

The New York Times

"ALL THE NEWS THAT'S FIT TO PRINT"

to talk of stringent measures against chronic absentees, and the possibility that the WMC, the War Labor Board, or some other agency will threaten such workers with loss of their right to work in any war industry, a "big stick" so far used only on strikers who defy NWLB back-to-work orders.

Labs Go to Town

Agriculture Department research boomed by war. Set up in depression for cotton, now proving its worth.

Regional research laboratories of the Department of Agriculture are a good bit more than ankle deep in the war. With activities ranging from development of mildew preventatives for army tents to perfection of Norepol, a rubber substitute, they bear scant resemblance to the depression-inspired project to study uses for cotton surplus which Senator Bilbo of Mississippi proposed five years ago.

• **Labs Expand Fast**—Then as now, congressmen knew a good thing when they saw it. "The Man" Bilbo's plan first set up a southern laboratory to study utilization of excess cotton but soon mushroomed into a $4,000,000 program (BW—Aug.31'40,p34) to develop new uses for surplus farm commodities North, South, East, and West. In a democracy, cotton wasn't going to monopolize any such juicy plum.

So Pearl Harbor found regional laboratories at Albany, Calif., Peoria, Ill., New Orleans, and Wyndmoor, near Philadelphia, Pa., staffed and equipped to deal with urgent research problems. Each of the four centers has, in addition to the usual complement of laboratories, pilot plant facilities for testing new products and processes under actual manufacturing conditions. To get results into the hands of industry as soon as possible, the Bureau of Agricultural Chemistry and Engineering carries all research through the pilot plant stage and tests it in actual use.

• **New "Rubber" Found**—A further step now has been taken to speed the expansion of commercial dehydration of food. In cooperation with the Agricultural Marketing Administration, the Agricultural Research Administration has just concluded two weeks' intensive training for commercial dehydrators at Rochester, N. Y. A similar school was conducted in California during September. Each made available to dehydrators and canners the results of laboratory work done on equipment design and improved technics.

Bulk of the work on rubber has been done at the Peoria laboratory. Here a rubber substitute called Norepol has

recently been put out for test. Norepol, which can be derived from soybean oil, corn, cottonseed or linseed oils (BW—Jul.11'42,p85), is cited in the Baruch report as a likely substitute for rubber in some mechanical goods. Laboratory workers at Peoria have found it satisfactory for insulation, rubber heels, and rings for sealing fruit jars.

• **American Rope Developed**—When rope fiber was slashed, the bureau went to work on a machine to process domestically grown hemp fiber. As a direct result, the Commodity Credit Corp. has launched a program involving 71 plants to handle the output of 300,000 acres of hemp to be grown in the north central states. Manila and sisal fibers, now practically unobtainable, may be replaced by substitutes made of cotton now being tested in the field.

A special cotton weave for fire hose, which will withstand 300 lb. pressure and needs no rubber lining and which may be used as a substitute for linen hose, has been perfected for the Office of Civilian Defense.

• **Another Rubber Angle**—Improvements have been made by the southern laboratory in the machine that chops up cotton as a substitute for scarce cotton linters for use in the manufacture of smokeless powder.

Significant and in a controversial field, work also has been done in the butylene glycol process for producing butadiene, the base of synthetic rubber, from grain. The Peoria laboratory has been producing butylene glycol for several months on a pilot plant scale, and research is underway on conversion of butylene glycol into butadiene. Although scarcely out of the laboratory stage, results are considered promising by grain-rubber enthusiasts.

• **Focus on Food**—With meat rationing in sight, soybean and peanut products are being investigated by research centers as a ready source of protein. The sugar shortage has brought forth a pectin which, in jelly, permits the making of satisfactory jellies with reduced amounts of sugar (BW—Feb.14'42,p68). Other developments in food processing include a concentrated citrus fruit marmalade, 60,000,000 lb. of which have been shipped to England for reprocess there, and improvement of the quick-freeze method of preserving fresh vegetables.

PALACE TO GARDEN

The 15th Biennial Exposition of Power and Mechanical Engineering—more popularly known as the "Power Show"—will be staged in Madison Square Garden, Nov. 30 to Dec. 4, instead of Manhattan's Grand Central Palace as originally scheduled. The Army has transformed the four exposition floors of the Palace into an induction center.

Scientific plant breeding succeeded almost too well with tung fruit. Heavy yields often broke trees. So the trees were redesigned to carry the load.

Tung Oil's Boom

With imports blocked and domestic stocks frozen, tung assumes important role in the American economy.

A rare combination of recent developments has thrown the spotlight on America's youthful tung oil industry, which this fall is coming through with the largest crop in its 11-year history.

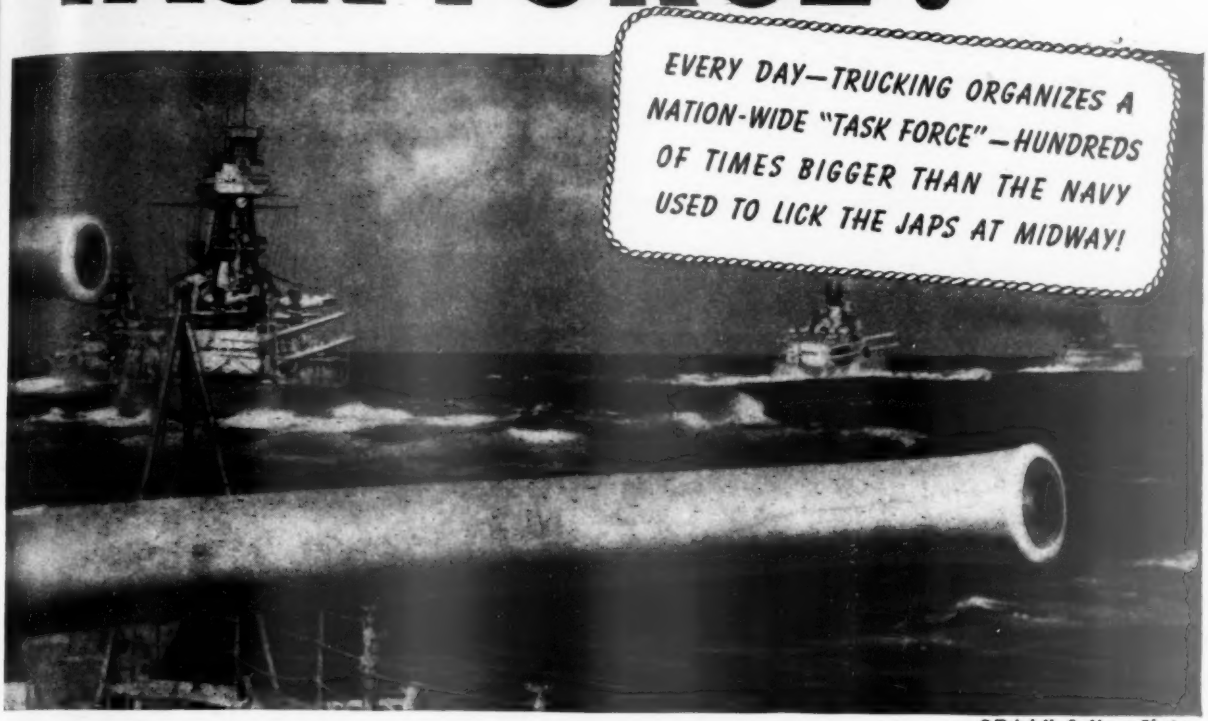
• **Market Unlimited**—Nursed to maturity by an almost unlimited domestic market, the industry has been stimulated by the need to replace declining shipments from war-ravaged China, and the improved yield produced by patient research.

The government already has frozen all stocks of the oil and has provided an assured market through the Defense Supplies Corp., which offers to buy all stocks at prices up to 36¢ a lb. Production cost is about 5¢ a lb. for large, mature groves.

Tung oil finds widespread use in the armed forces—chiefly as a waterproofing agent in the coating of bombs, shells, tank guns, and other ordnance. Civilian uses include paints, varnishes, paint drier, concrete waterproofing, making of linoleum, lithographic printing, ink manufacture, brake linings, tanning, textile waterproofing, electrical insulation, tube coatings, and lining for food cans.

• **Why Government Aid?**—Several factors impelled the government to promise aid to tung growers and millers. First is the certainty that Chinese oil will continue to be scarce for years to come. Second, the Chinese are pursuing a

TASK FORCE?



Official U. S. Navy Photo

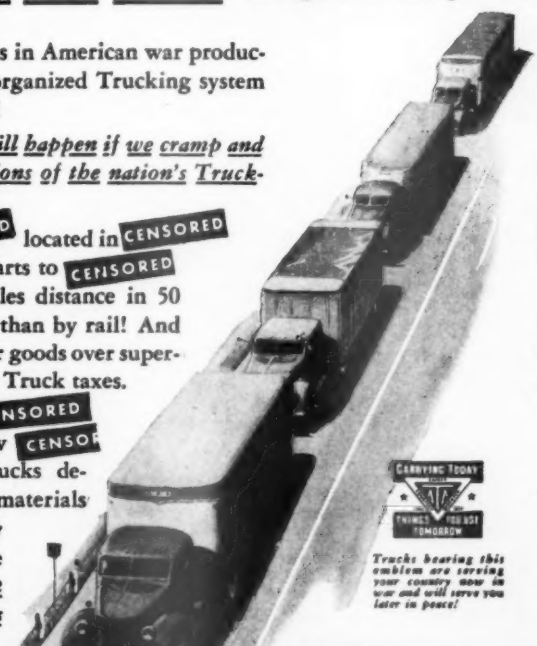
Behind all the Truck Shipments of Vital War Material, there's a vast, highly trained, team-working Organization . . . that makes America's Trucks the fastest, most flexible Freight Transport System in the World!

Can you imagine the chaos in American war production . . . if the superbly organized Trucking system were suddenly broken up!

Yet—that's just what will happen if we cramp and interfere with the operations of the nation's Trucking companies. Look—

Manufacturer CENSORED located in CENSORED has to ship CENSORED parts to CENSORED Trucks cover this 900-miles distance in 50 hours, 2 to 3 times *faster* than by rail! And remember—Trucks deliver goods over superhighways built largely by Truck taxes.

Plane-manufacturer CENSORED in CENSORED receives raw CENSOR from U CENSORED p. Trucks deliver these vitally needed materials in *one* day. Ordinary freight would take three full days! *Actually—if it were not for Trucks, this important manufacturer would be compelled to shut down due to lack of materials!*



Trucks bearing this emblem are serving your country now in war and will serve you later in peace!

And so it goes . . . on long or short hauls—Trucks accelerate America's war production—thanks to the "know-how" organization and skill *back of* America's trucks!

The nation's truck drivers—and the men *behind* the drivers—are doing one swell job in helping America win this war. Let's *defeat—immediately*—any attempt arbitrarily to limit the smooth working of this great freight transportation system!

NOT CENSORED

. . . but open for your inspection in the files of ATA are hundreds of letters from war plants telling about the irreplaceable service rendered by trucks. The keynote in all of them is this: "Reduce trucking company service — and our whole war program will bog down. Our production system is built on truck transportation."

THE AMERICAN TRUCKING INDUSTRY

AMERICAN TRUCKING ASSOCIATIONS, WASHINGTON, D. C.

Construction—Builder of Bases

America's Great Peacetime Industry Goes to War

PUNCHED through 1,600 miles of trackless wilderness and rivaling the Panama Canal in strategic importance, the Alaska Highway will cut days and dangers from present supply routes . . . to Alaska . . . to the Aleutians . . . yes, to Japan itself!

This job, to be finished soon and well ahead of schedule, is but one example in thousands illustrating how construction sets the stage for our war effort . . . and why the construction engineer is vital to victory.

Back of America's busy production lines, expanding shipyards, growing cantonments and far-flung military bases is a series of swiftly executed construction jobs. Important jobs! ***For the construction industry is a builder of bases. Bases for production—for training—for defense—and for attack.***

To conceive and to carry through so tremendous a program in a race against time is typically American. It requires enterprise and the sort of versatility that has been acquired by undertaking every kind of job; from a Boulder dam to a drydock, from a Pennsylvania Turnpike to a housing project, from a Radio City to a railroad tunnel . . . and taking it in stride. War's demands in the eyes of America's construction men, are simply more of the same—for a grimmer purpose, and under heavier pressure.

The civil engineers who develop the necessary designs, the contractors who execute them and the manufacturers who provide the equipment and materials, are as much a part of this war as are the men who face the enemy. The results of their labors are recorded in mounting production figures, and will be indelibly written in the military annals of this war. Those 60,000 airplanes, 45,000 tanks and 8,000,000 tons of shipping that the President asked for in 1942 will be supplied because—and only because—the construction industry did a Herculean plant-building job first—and fast.

This is the fifth of a series of editorials appearing monthly in all McGraw-Hill publications, reaching more than one and one-half million readers, and in daily newspapers in New York, Chicago and Washington, D. C. They are dedicated to the purpose of telling the part that each industry is playing in the war effort and of informing the public on the magnificent war-production accomplishments of America's industries.

Yes, construction, America's great peacetime industry, has gone all out for war. From a normal 6½ billion dollars in 1938, it got into its war stride last year with a 11½ billion dollar volume. And under the impetus of Pearl Harbor, the 1942 figure now promises to reach the unprecedented total of 15 billion dollars. "If buildings would win the war, Hitler would be licked now", said Lieut. Gen. William S. Knudsen recently. Which emphasizes the further fact that the construction industry was the *first* to go to war.

The technical and managerial talent that is accomplishing this mammoth job has had to find its strength and resources within itself. No possibility of "conversion" here! Only years of varied construction experience enabled it to tackle and to achieve the manifold tasks that building for war demands.

Take that cornfield, for instance, that Henry Ford picked for his record-breaking bomber plant. The spring mud was soft and deep when contractors moved in last year. They were entering a race against an almost impossible time limit. Before they could even begin on the plant itself, they had to build roads, lay a 4-mile water supply line and install a complete sewerage system with its disposal plant. But such varied jobs—each big in its own right—merely were antecedent to running up the framework and enclosure for the 60-acre factory itself. Or to using road-building methods to pave a floor that was the equivalent of 25 miles of 20-foot wide concrete highway.

It was a race against the approaching winter, and to win it they had to push their $1,000,000 worth of construction equipment to the limit—day and night. But win they did! It is accomplishments like these that explain how the nation's aviation factory floor space jumped from 18,000,000 to 60,000,000 square feet in

the past two years . . . why Fortresses and fighter ships are beginning to turn the scales of war in our favor.

"Somewhere in the Southwest" the Army called for a training base. The contractor who answered that call summed up his performance in characteristic fashion: "Beginning without so much as a contour map we had a $10,000,000 project ready for operation within 90 calendar days, and saved 3½ million dollars of the estimated cost".

At another Army camp a contractor assembled a crew of 20,000 men who put together 1,400 buildings in 125 working days, along with a sewer system, a water-supply and a street layout of which many a fair-sized city might be proud. This job swallowed up 2,000 carloads of lumber, and 26,000 kegs of nails. So perfect was the teamwork, from the general manager down through the hundreds of superintendents and foremen to the specialized crews, that as many as seventy buildings were erected in one single day.

But versatility and experience are not the only qualities that the construction engineer has in his tool chest. He has ingenuity, and he needed it when steel, copper, zinc and aluminum had to be used for combat equipment, and were denied him. Great hangars, conventionally of structural steel, were turned out with record-breaking timber arch spans. Reinforced concrete factories were designed to require only 3 lb. of steel bars per square foot instead of the customary 5 lb. Asphalt-impregnated paper was substituted for copper in flashings, cement-asbestos for galvanized steel in duct work. In the face of a materials shortage, he continued to build bases—safely, economically, and on time.

Construction ingenuity, too, is back of the records in Liberty ships, in war housing and a host of other facilities. Indeed, it was the construction industry that stepped forward to assume the bulk of the emergency shipbuilding program, leaving established yards free to handle more specialized Navy work. Naturally, it was easy for civil engineers and contractors to build the shipyards, but building ships was another story. It is a far cry from steel ships to conventional engineering structures, yet, drawing upon their bridge and building experience, the men of construction have turned out ships faster than they were ever built before.

How was this possible? . . . because the construction man sees every job as a new problem, views every precedent as something to be discarded in favor of something better. So instead of assembling the myriad separate pieces of each ship on the ways, he fabricated them into huge built-up sections. These he swung to the ways and welded them into place in a fraction of the time required by old methods.

Again, the demands for wartime housing for workers in industrial areas, at Navy bases, and near Army concentrations, have altered the meaning of "residential construction". The building of individual houses has given way to a form of multiple-unit project that calls for the skilled services of the architect, the civil engineer and the large contracting organization. On one such project, for example, a contractor experienced in large building and bridge construction employed an extensive system of prefabrication and site assembly that made possible the completion of 5,000 houses for war workers within five months.

All these activities, within the United States, parallel the achievements of other industries that serve the men at the front. But construction knows no continental limits. Its men are serving throughout the network of defense bases built in the West Indies, Greenland, and Iceland, and in the offensive bases that are taking form in the jungles and deserts of Africa, the harbors of the Persian Gulf, and the plains and mountains of Australia and Alaska. Already in this war, as in the last one, construction crews, like those at Wake and Guam, have dropped their peacetime tools to fight shoulder to shoulder with their comrades in uniform. Construction follows the flag to the farthest outposts in this global struggle.

* * * *

But while the construction industry thus serves the special needs of the armed forces, it must look after its job at home. It must keep the highways serviceable, the water supply safe, sanitary facilities adequate. There are home chores that cannot be neglected even in war.

And when we finish our No. 1 task of winning the war, the construction industry will again be called upon to help re-establish peacetime employment and to stimulate the normal industrial activities of the nation. It will raze, redesign and rebuild; it will bring modern sanitation to urban dwellers; it will safeguard fertile areas and cities from disastrous floods; it will improve all forms of transportation; it will design and build the facilities that will be needed to reconvert from war to peace. Its vision, versatility, experience and ingenuity will be as indispensable then as they are vital now.

Today it is building the bases that are needed back of every battle-line. Tomorrow it will build for a new and better era. Today it is laying the foundation for the victories that must be ours. Tomorrow it will lay the foundation for the peace that will follow these victories. In war and in peace the construction industry is the builder, the harnesser of nature's forces.

President, McGraw-Hill Publishing Company, Inc.

scorched-earth policy before the Japanese, and it will require at least five years before replanted groves are able to bear. Third is the fact that China, whose exports to the U. S. have been slashed by the Japanese blockade from 175,000,000 lb. (1937) to 33,000,000 lb. (1941), will need in the years to come 70% of her tung output for motor fuel and for "the lamps of China."

• **Growing Pains**—Tung tree cultivation is no "plant-and-wait" proposition. The first seeds were imported from China in 1903. Yet it was not until 29 years later that Dr. C. C. Concannon, an ardent supporter of the tung movement here, was able to publish a volume called, Economic and Commercial Factors in the Development of a Domestic Tung Oil Industry, which has since become the bible of the trade.

Tung oil in America had its promotional growing pains. Those who would fleece the unwary have sought to conceal the facts that tung land need not be expensive; that trees will not, however, grow on any type of land; and that tung cultivation requires special knowledge, care, and experience.

• **Redesigning a Tree**—Most striking of all improvements by American planters was the strengthening of the trees. As scientific care kept increasing yield, trees began to overbear, often broke down completely with their loads of fruit. Uncontrolled trees produce branches stemming from the same plane around the tree in spoke fashion. However, by careful management and maintenance, young trees can be made to develop branches stemming in a spiral pattern, thus spreading the load stress along the main trunk.

Many advantages are offered to the South by the tung tree. The 1942 crop (close to 8,000,000 lb. of oil) will mean nearly $3,000,000 in new wealth for the tung belt—an area 100 miles wide along the Gulf Coast. This crop will bring a cash return of $80 to $90 per ton and should average from ¼ to ½ ton of fruit per acre from mature trees.

• **Where Big Market Is**—It is in paint that the really big potential market lies. Estimates of paint manufacturers themselves place the amount of tung oil this industry could absorb at 400,000,000 lb. a year—compared with only 175,000,000 lb. by the paint, varnish, and other industries altogether in 1937.

Indicative of the expansion of the tung industry in America are Bureau of the Census figures showing that the number of tung trees in the United States has grown from 3,632,361 in 1935 to 12,671,344 in 1940. The distribution of trees in the 1940 census was Mississippi, 75%; Louisiana, 14%; Florida, 10%; and Texas, Alabama, and Georgia together, 1%.

• **Problem Is Production**—The problem now is one of production and more production. Salesmanship is unnecessary.

Steel Goes West

Kaiser and Columbia add to Pacific facilities giving Coast new industrial outlook; postwar possibilities studied.

Out of war's nightmare, the Far West is seeing one of its fondest dreams come true—establishment of an integrated steel industry at home.

• **Use Exceeded Output**—As of January, 1942, ingot capacity of the Coast States was just over 1,200,000 tons a year and that of Colorado about 1,100,000 tons, totaling only about 2½% of the nation's capacity. Finished steel capacity was approximately in the same ratio. Consumption of finished steel, on the other hand, approximated 5% of total output, the difference coming from eastern and mid-western plants.

Prewar shipments came through the Panama Canal, and it was widely argued that the transportation cost was consequently low enough to make it uneconomical to build new productive facilities then. It was further contended that demand for different types of products was so varied, and so scattered geographically, that local finishing plants were unjustified, therefore also was expansion of ingot capacity.

• **More Reasons**—Except for a few weeks in 1929, steelmaking capacity in the East and mid-West had never been utilized fully, and most steel men saw no reason to increase the excess capacity problem by erecting new facilities on the West Coast.

As early as May, 1941, officials of the Iron and Steel Branch in what was then the Office of Production Management expressed belief that the increase in West Coast defense industries, together with diversion of shipping from the intercoastal trade and possibility that a war would make the Canal route impossible, made the prospective steel supply question an imperative one.

• **Fears Well Founded**—How justified were their fears can be seen today. All steel for the area's greatly expanded war industries in excess of that produced on the spot now must be shipped from the East by rail. Some idea of the burden thus placed on the railroads can be gained from the fact that one group of Coast shipyards alone uses 150 carloads of steel daily.

Now something is being done about it. By next June, an additional 2,000,000 tons of ingot capacity will be completed, with sufficient new coke ovens and blast furnaces to keep the expanded facilities supplied with raw materials, and sufficient finishing capacity to make use of the added output.

• **More Steel Next Spring**—The major portion, but not all, of the new con-

struction is being undertaken by two companies—Columbia Steel (U. S. Steel subsidiary), and the Kaiser Co.—with the aid of the Reconstruction Finance Corp. and the Defense Plant Corp. Columbia is moving a long unused blast furnace bodily from Joliet, Ill., to its present plant at Provo, Utah, long the Far West's sole pig iron producing unit, which will be in full operation next month. (The Colorado Fuel & Iron Co.'s Pueblo Plant—capacity 563,000 tons—is east of the Rockies.) Big Steel also is building $150,000,000 worth of new facilities at nearby Geneva, Utah, including three blast furnaces, nine open hearths, four coke ovens, a slabbing mill, and a structural mill.

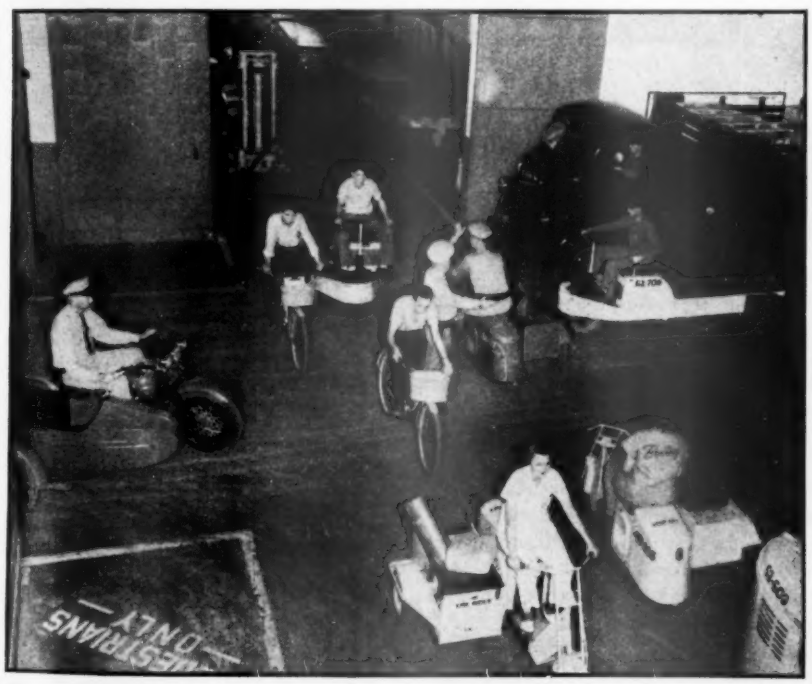
These installations are scheduled to produce pig iron by April, ingot steel in May, and the slabbing and structural mills will be rolling by June. Columbia's raw materials will come from a new coal mine being developed near Geneva and a large, high-grade iron ore deposit near Cedar City, Utah, not far from the Provo plant.

• **Kaiser Expands**—Kaiser's main development is at Fontana, in Southern California. Original plans called for one 1,200-tons-a-day blast furnace to be completed next month, four 185-ton open hearths and a 110-inch plate mill ready for operation next March. Last month, however, Kaiser made one of his quick transformations from contractor and shipbuilder to aggressive salesman in an attempt to get War Production Board approval of a plan to more than double these facilities at a cost of $78,000,000. He asked for another blast furnace, five more open hearths, an electric furnace for light alloys, a structural mill, and other finishing capacity.

WPB approved a $26,000,000 addition, comprising two open hearths with an annual capacity of 225,000 ingot tons, a 28-inch structural mill, a merchant bar mill, alloy-finishing facilities, and soaking pits. Kaiser's coking coal is to come from Sunnyside, Utah, and his iron ore from Kelso, Calif., about 175 miles northeast of Fontana.

• **Post-War Needs Seen**—Observers are pretty well agreed that most of the industrial plants being built in the West are likely to continue after the war. They feel substantial shipbuilding will continue in Coast yards; plane manufacture will continue to boom; metallurgists are talking of a western light metals industry based on the presence of necessary minerals and cheap power; population increases will raise the demand for consumer goods; and increased farm mechanization will induce expansion of a peacetime farm equipment industry when raw materials are available after the war.

• **Rival for the East?**—These factors add up to a demand for steel and steel products that should easily absorb the output of the expanded steel facilities. Among the more optimistic westerners there are even predictions that the western steel industry may be able to compete with eastern mills in midwestern markets.



INSIDE STORY

One traffic problem in the war-boomed community of Wichita, Kan. that can't be laid at the door of civic officials is a situation inside the Boeing Airplane plant where traffic is often so thick that a guard is needed.

"Boy, look at that Thanksgiving turkey! *How did you get it?"*

Vermont Turkey in the Indian Ocean

YOU'RE LOOKING right at a scene that will take place on hundreds of merchant ships in a few days. The mouth-watering aroma of roast turkey will surround the galleys of American ships in every latitude at sea or in port.

How can perishable foods be kept fresh, months away from home? The answer lies in a mechanical seaman standing watch always—marine refrigeration.

Years ago Carrier designed equipment to withstand the pounding of seas and the corroding effect of salt air and water. Today, marine architects and engineers specify more Carrier equipment than any other means of mechanical cooling.

On many a slate-grey merchantman Carrier Refrigeration also protects the ship's cargo—keeping foods fresh for our soldiers overseas.

In the Navy, too, Carrier Refrigeration does "double duty" by providing the cooling necessary for essential air conditioning as well as for protecting the ship's stores.

Carrier Refrigeration, and its companion, Carrier Air Conditioning, are today "all out" in serving the war effort, to hasten the day of Victory.

When that day arrives, the men and women of Carrier will again devote their efforts to better products for peace.

Carrier Corporation, Syracuse, New York

The Navy "E", one of the U. S. Navy's most coveted honors, was awarded to Carrier Corporation for excellence in war production.

Carrier

AIR CONDITIONING

REFRIGERATION

Beauty Shop Grief

Owners are pinched between booming demand for their services and steadily shrinking supply of operators.

Autumn, which usually finds a fair percentage of June's high school girl-graduates enrolling in beauty culture courses, this year and last year saw them heading toward war industries instead. This trend, coupled with a record-breaking business boom, constitutes the No. 1 headache of the nation's 83,071 beauty shops.

• **Expansion Story**—During the depression, when operators and shop owners alike were willing to work long hours for modest compensation, new shops mushroomed, offering low-priced services, and even established shops cut prices. As a result, many an American housewife who had never before set foot in a beauty parlor became a regular patron—and never relinquished the privilege.

Now that more women have more money to spend, and fewer manufactured goods to buy, shops are badly pinched between expanding business and shrinking personnel.

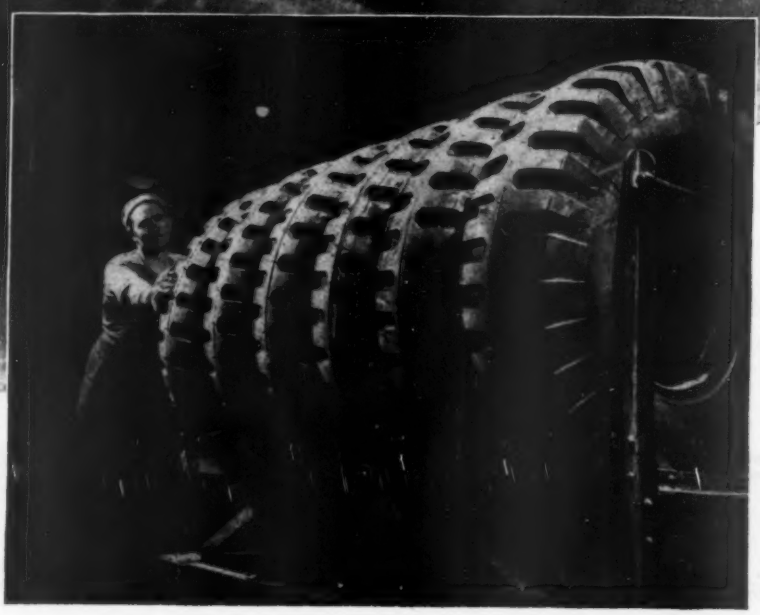
• **Dearth of Students**—Normally the new crop of younger girls provides about 15% of the industry's personnel, but this year many schools of beauty culture have gone out of business for lack of students. Of the 28 schools that flourished in Chicago, only eleven are left, and these report a drop of two-thirds in enrollment.

The reason, of course, is that girls are going into war industries where, without an outlay for training, they can easily earn twice what they would receive as beauty operators. Despite pay increases of from 25% to 30%, some experienced operators are also deserting their profession.

• **In the Boom Towns**—For boom town shops, the labor problem is intensified. A shop in airplane-manufacturing Wichita, where population has doubled within a year, reports a 57% increase in business for the first six months of 1942. Shop owners in other war industry towns, such as Joliet and Burlington, report increases of from 30% up—and are counting themselves lucky if they can hold the operators they already have.

And with less time on their hands and more money in their purses, women war workers are demanding higher quality beauty services. Those who used to be content with a plain shampoo and finger wave now ask for an oil shampoo, finger wave, and manicure.

• **Occupational Angles**—Factory regulations specifying short hair have meant



WHEN ARMY HALF TRACS AND SCOUT CARS go into action, "keep moving" is the order. Bullets puncturing the tires ordinarily might stop them, but General combat tires keep on going.

●

SIX GIANT COMBAT TIRES are shown here in General's factory .. ready to be shipped to Army field duty. Now, the ultra-modern manufacturing facilities that gave you Top-Quality General Tires for your car are giving our Armed Forces vital tools for battle.

●

Though "*Wounded in Action*" this Tire keeps rolling!

WHEN you're in a combat zone . . . you can't stop to *change a tire.* So . . . General's engineers accepted and licked the assignment to build a General Combat Tire that bullets and even shell fire won't put out of action!

For many months, The General Tire & Rubber Company has been in large scale production on this wholly new kind of *fighting* tire.

Barrage balloons; gas masks; pontoons; life belts; assault boats; parachute boats; combat tires . . . these and numerous other implements of war now take the rubber that brought you General Tire *Top-Quality* in peacetime.

For Victory . . . *at home* . . . save the rubber you have on your car. Hold your speed to 35 mph; check the air pressure regularly; be sure your tires are *always* in top condition. Don't waste a *single mile* of America's precious rubber.

THE GENERAL TIRE & RUBBER COMPANY
Akron, Ohio

The **GENERAL TIRE**

The Sign of Tire Inspection, Repairs and Recapping by Experts Who Know How

VICTORY WILL COME WITH THE RUBBER YOU SAVE

more work for beauty shops, while various special problems have stemmed directly from factory work itself. Hands roughened from contact with metals must be smoothed and massaged with oil. Dry hair and dandruff, which seem to persist under factory conditions, require remedial treatment.

Girls in munitions plants turn to their beauty parlor for help in correcting or disguising a yellowish color that tetryl produces in their hands and hair.

• **Equipment and Supplies**—In comparison with the labor situation, the problems of equipment and supplies are relatively simple. Although General Limitation Order L-65 cut off all production of such equipment as hair dryers and permanent wave machines on May 31, manufacturers' and jobbers' inventories are still heavy. This, plus some shrinkage of the industry due to failures of marginal shops, is expected to carry the business along for at least the next twenty-four months. Repair parts can still be manufactured, and jobbers' service departments are expanding.

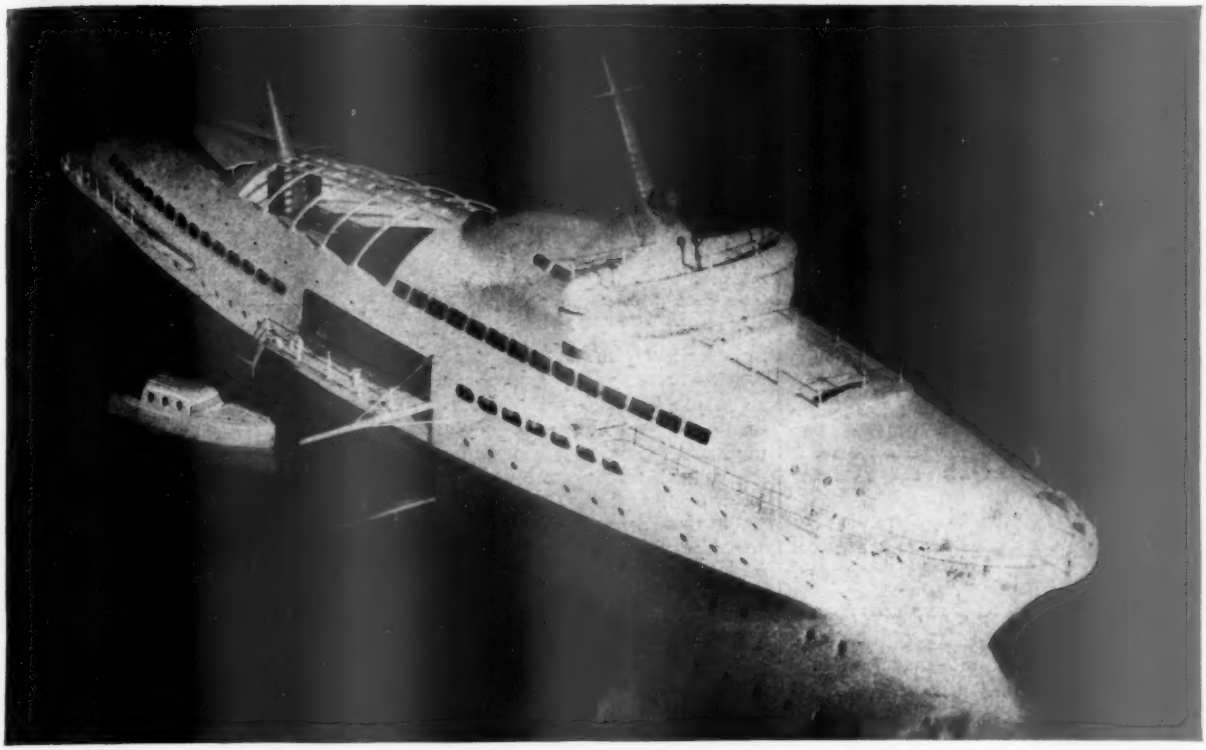
Similarly, shops are going along pretty well on current inventories of supplies, thanks to careful conservation, and are confident that when these run out, manufacturers will provide adequate substitutes made from noncritical materials.

• **WPB's Restrictions**—The industry as a whole rejoiced to find itself let off rather lightly by WPB. Restrictions on new products and package sizes will hamper, but not seriously handicap, the beauty shops that make up the nation's second-most prevalent personal-service industry. (Trailing only barber shops, the beauty shops did a $231,670,000 business in 1939.)

Because of recent WPB orders restricting the production of hair pins, shops are encouraging their patrons to buy and maintain their own private supply. Women who once left a flood of discarded hairpins in their wake now bend down to pick up even a single pin—sometimes even engaging in arguments as to whose pin it is.

• **Casualties**—While the number of shops going out of business is larger than usual, most of them are establishments that paid low wages and offered low-priced beauty services. Surviving shop owners are inclined to feel that, in the long run, this trend may prove tonic to an industry which has for many years been notoriously over-crowded and under-paid.

Of the 83,071 shops doing business in 1939, three-fourths reported receipts of less than $3,000, and somewhat less than one-third reported receipts of less than $1,000. In the current labor pinch, the shops charging higher fees and paying higher wages are having the least trouble holding their experienced operators.



Ducks could take lessons...

NORMAN BEL GEDDES,
Industrial Designer

THERE'LL BE MANY a goggle-eyed mariner the day this super-streamlined beauty slips down the ways.

But here you get only a bird's-eye view of its finished grace... so let Mr. Geddes, the craft's designer, give you the inside story...

"Well... let's start with the hull and superstructure. They represent the coming renaissance of the days of wooden ships as foreshadowed by the use of plywood in our navy's PT boats. Modern plywoods, bonded and impregnated with Durez phenolic resins, have given our oldest structural material a new lease on life. Their strength is incredible to the layman. Plywoods now easily withstand the stresses imposed by the roughest seas. Even immersion in boiling water for 24 hours will not separate the plies at the glue-line. They are unaffected by sea water, acids, alkalis or bacteria. They resist fire. To ship building they bring the economies of mass production... whole sections can be molded to be assembled later at the yard.

"These Durez-bonded materials inspire the industrial designer. By careful planning we have been able to allow a total of 4498 square feet of free and clear deck space in a ship which is only 231 feet long with a 37-foot beam. In stormy, cold or rainy weather... all decks can be closed in. Lifeboats and launches are carried within the shell of the superstructure, can be loaded from the inside and launched from folding landing platforms. Cumbersome stacks and ventilators are eliminated—the foremast serves as an air intake for engine rooms and air conditioning system. The mainmast carries the air exhausts."

This is the design for another facet of the better world that America can—*and will*—build, once the task of restoring peace and security to the peoples of the earth has been accomplished.

The immediate job is to get this war won. Perhaps Durez plastics and resins can help you forge a better weapon. The experience of Durez research engineers and chemists is yours for the asking. To learn more about plastics' versatility, you have only to write on your business letterhead for a copy of *Durez Plastics News*.

DUREZ...plastics that fit the job

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PRODUCTION

Speedup in Tools

WPB wants delivery time on machine tools reduced, but industry finds problems in the way as it prepares for action.

For weeks rumblings from Washington have reached the country's 300 machine tool builders that their big days in the war production program may be numbered. That they had done a grand job in shooting operations up to the lofty heights of $120 millions a month (more than the total volume in an average peacetime year), but the initial tooling-up period was over. And that with limited materials available, only machine tools absolutely essential must be produced; more attention must be put on getting the most out of the machines already turned out. So the word ran.

● **Dividing the Backlog**—On top of such talk, which made many builders wonder whether in the next six months they must look around for other war goods to make, an urgent appeal has been issued by the Tools Division of the War Production Board for a speedup in machine tool production. George C. Brainard, division director, (and president of General Fireproofing Co.) asked the industry to redistribute its billion-dollar backlog so that it would be more evenly divided among companies and, hence, deliveries of vital machines could be hurried up.

Today one maker of a certain type of critical machine cannot make deliveries before 12 to 18 months, while another maker of a comparable type of machine can quote four months. The former should turn over some of his piled-up business to the latter, Mr. Brainard suggested. He also should do more subcontracting. "Every machine will have to be worked at its practical maximum, every foot of floor space fully utilized, every man and woman will have to strain."

● **Tools for Plane Builders**—No official explanation has been given for this sudden appeal, but it is a good guess that it stems from eagerness to see that tooling for the enlarged aircraft program for '43 is not seriously delayed. Washington has decreed that next year's plane manufacture must rise to a figure hitherto regarded as fantastically high. Prelude to that accomplishment is creation of much in the way of new pro-

CANVAS TANKER

Another method of converting boxcars into tankers (BW—Aug.22'42, p20) has been demonstrated by Mark J. Fields, Chicago, to a group of government and railroad officials. Each of four compartments in a boxcar (divided by wooden bulkheads) contains a bag of canvas treated with Du Pont synthetic rubber—Faraprene. Capacity of each bag is 2,500 gal. of gasoline, fuel oil. Total capacity—10,000 gal.—is equivalent to a standard tank car.

ductive facilities. With that in mind, WPB has given the green light to machine tools for aircraft production at the expense of all other war goods. Scores of thousands of machine tools must be ready reasonably early in 1943 if the plane-production goal is to be attained.

Biggest immediate worry of the machine tool builders in responding to WPB's demand is materials, especially steel. They have not been able to better an AA-2-x rating, which they find inadequate to get them the steel needed. Otherwise with considerable new plant facilities now ready, they can continue to expand output the remainder of the year. But on WPB's call for still more extensive subcontracting, they say that further farming out of work is being hampered by the fact that OPA's price ceilings make it unprofitable for them to pay the high scales demanded by subcontractors.

• **Industry Men in Charge**—Meanwhile, George H. Johnson, president of the Gisholt Machine Co. and recently retired president of the National Machine Tool Builders' Association, will succeed Mr. Brainard late this month—and will be the first machine tool man to take charge of the WPB Tools Division. Another, John Chafee, vice president of Brown & Sharpe Mfg. Co., and recently elected president of the N.M.T.B.A., will go in as his deputy.

MILLS WANT LEARNERS

The cotton textile industry is looking to the Wage-Hour Division for relief from the manpower shortage which has developed steadily since Selective Service and war wage spirals began taking the cream of labor. Itself engaged in high priority work, the industry is being squeezed between labor losses and the division's hiring restrictions.

Under wage-hour regulations, most cotton mills are permitted to take on only 3% of their total personnel as learners (a rule preventing abuse of the 25-cents-an-hour training wage). Even the industry-wide wartime increase of 100,000 workers has failed to provide enough replacements under the percentage system.

Representing 90% of the nation's mills, the Cotton-Textile Institute, Inc. went to bat for its members, asked revision of learner restrictions, which are more lenient in some allied industries (10% for garment makers).

Facts laid before a Wage-Hour examiner by the institute included: (1) Some mills have had to reduce work schedules for lack of millhands; (2) The industry's production this year will be 12,500,000,000 sq.yd .—one-third more than in 1939 when the rules were made; (3) About 70% of the textile order backlog comprises such priority items as uniforms, heavy duck, and sandbagging.

SORRY—NO VANILLA

Some like their rivets hot, and some like them cold. At Consolidated Aircraft's San Diego plant, ice-cold rivets are served out of insulated ice-cream carts to metal workers who build the PBY flying boats and Liberator bombers. Cold rivets have greater holding power because they expand at normal temperatures.

Packaging Boxed

New container styles hit markets in wake of materials shortages; but industry finds many more to come.

Christmas, 1943, will turn up the first genuinely radical changes in yuletide packaging. Most 1942 lines of packaged merchandise were designed earlier in the year, and materials were corralled before WPB had a chance to proclaim too many limiting orders. Even though manufacturers were unable to use metallic inks after May 31, they have so replaced silver and aluminum with light blue and gray shades and gold with yellow, that it takes an expert to detect substitutions.

• **Paper and Towels**—Apparently most of the readers of Modern Packaging took its editors seriously when they wrote last June that those who prepare now for a reasonably good Christmas season will be mighty glad of it later in the year.

What you will see, if you have not followed the advice of early holiday shopping, is a considerable drop in variety. One of the big novelty paper houses, for example, reduced its design range from 120 to 90 numbers and cut its color range in each design by a like proportion; hence packages made from them show correspondingly less variety. A big towel manufacturer has four special assortments packaged for Christmas this year, as compared with 18 in 1941.

• **Liquor Comes Plain**—Special packages for liquor and wine are completely out, unless your dealer has some slow-moving numbers left over. Perfumes and cosmetics are as dressed up as ever. Makers of cigars, cigarettes, and pipe tobaccos were hard put when WPB ruled against double wraps, have managed to come through with plenty of holiday sales appeal.

What with price ceilings and some constriction in the choice of papers (cellophane and all metallic foils except lead are out, in all but a few stores with a limited carryover), special "gift wrappings" are no longer done free by department stores and specialty shops. They will be glad to sell you seads of wrapping materials for your own use, and equally glad to wrap your gifts for you, but you will face charges ranging from 10¢ to 25¢ and up.

• **Dog Food and Smokes**—OPA made it all too clear in its edict of Oct. 31 that "the maximum price for the contents and the packaging . . . is the maximum price which would apply to the contents without the special wrappings."

You won't have to wait until Christmas, 1943, to see the changes in packaging nonholiday goods. If you own a dog, already you are buying two and a half times the quantity of pet food in practically the same size container. The manufacturers dehydrate it now and pack it in paper instead of tinplate (BW—Aug.1'42,p27). If you're a "flat-fifty" smoker, you've been getting cigarettes in a completely nonmetallic paperboard pack for some time. Most cigarettes turned from foil to paper for their inner package wraps months ago.

• **The Ruling Eight**—It won't be long before pocket tins of aspirin will be replaced by paperboard boxes with a sliding cover that will dispense one tablet at a time. Colgate has converted to a spirally-wound conical paper box; Calox to a cylindrical paper container having a wooden dispensing shutter. Pipe tobacco may soon arrive in either a paper box or a leadfoil and paper package (lead is plentiful again for a while), since no more lithographed cans are being made.

Eight officials of WPB's Container Branch (including Charles L. Sheldon, chief, and five heads of subsidiary sections dealing with metal cans and tubes; wood and fabric; steel drums, cylinders, and tight cooperage; glass containers and closures, folding and set-up boxes) met with the Packaging Institute in New York and made it clear that two basic considerations will determine petitions for materials or equipment: Will it help win the war? Will it get in the way of winning the war?

Apropos of the tightness in packaging, one institute member asked, "Are we then going to have to return to cracker barrel days?" A WPB spokesman replied, "No we won't; there isn't enough cooperage available."

• **Coopers' Awakening**—As a matter of fact, there will be tight, or liquid-resistant, cooperage available to take up some of the shortages in steel drums. Tight cooperage capacity runs around 15,000,000 bbl. per year, and about the same number of kegs. If these wooden containers are needed for essential chemicals which can be put in the wood, there is little doubt they will be diverted from the beverage industry.

Of dry cooperage, the kind formerly used for crackers and still used for other dry materials, there should be a slowly growing supply as long dormant coopers swing back into action. Their only limiting factor will be lumber. There are plenty of trees, but a scarcity of men and transportation to turn them into lumber, staves, and hoops. Steel hoops will be available only to the most essential containers. Plywood barrels, which are just coming into their own, will be limited not only by the same set of lumbering factors, but also by a lack of special machinery necessary to fabricate them; likewise wood and plywood boxes.

• **Looking Ahead**—What 1943 has in store for any type of container is impossible to forecast. Tinplate will continue to go to military containers and to essential civilian items that cannot be packed safely in any other material. Blackplate, because of military requirements for steel, will likewise be held down all possible. Glass is comparatively plentiful, with the glass container industry running at 80% of capacity; but closures to seal glass containers are scarce and getting more so. There simply are not enough plastics and metal, cork, and rubber to go around.

One company retains hope of an all-glass closure, but it can be applied only to vacuum-packed containers, and machinery for doing the job is practically nonexistent. Another company believes it has a noncritical gasket material to replace rubber, but it is too new for tests in contact with all the foods and

GLASS AGAIN

By packaging its polishes, insecticides, auto cleaners, and waxes in glass bottles, Standard Oil Co. of Indiana contributes to the tin conservation drive a yearly scrap pile of 2,000,000 tin cans (No. 2 size). The tinplate thus saved is estimated to equal 482 medium tanks or 377,814 rounds of 37-mm. antiaircraft shells.

CENTURY MOTORS are Famous for Their Ability to "Keep a-running"

They are serving the Armed Forces of the United Nations with a distinction that is important to you.

Standing the Shock of Battle

In the Naval Service, in typical applications, modern Century Motors aboard ship must stand up under the shocks of gun-fire and bombing attacks. They are especially built to take the punishment of actual combat.

7½ HP Direct Current Ball Bearing, Fabricated Steel, Water Proof Navy Motor

And the Demands of War Production

Similarly, on the production front, Century Motors are staying on the job under 24-hour, continuous, 3-shift production. They take the shock loads of the heaviest machinery, yet their unusual freedom from vibration helps speed up the finest precision machine tool production.

For the Future

Because of War demands, Century is now engaged in the production of a wider range of motors, generators, and other rotating electrical apparatus than ever before. As a result, when Victory has been won, we'll meet your requirements with an extended, improved, and more complete line than we have offered since our founding in 1903.

Because of what Century is doing today — we'll serve even better tomorrow.

3 HP Direct Current Ball Bearing, All Steel Navy Motor

CENTURY ELECTRIC COMPANY
1806 Pine Street, St. Louis, Missouri
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Century MOTORS

361

Century Motors, both alternating and direct current, are being produced for the operation of the many kinds of machine tools, industrial fabricating and processing machinery used in the manufacture of ammunition, munitions, cargo and combat ships, and for driving their operating equipment.

One of the Largest EXCLUSIVE Motor and Generator Manufacturers in the World.

drugs it might be called on to seal. A third company thinks it has a plastic crown cap that will replace the familiar beverage bottle topper, but it will require modifications of present capping equipment. Paper is plentiful, but WPB has cut production from 17,000,000 tons to 12,000,000 in 1943. Still, many producers figure it's as safe to turn to paper for packaging as to glass.

• **The $64 Question**—So if you are going to require new equipment or new parts to convert packaging lines to different materials, WPB will ask a single, searching question: "Will the material and manpower necessary to produce the changes result in outstanding savings of material and manpower after the changes are made?" If your answer is resoundingly in the affirmative, the WPB Container Branch will do everything in its power to secure necessary permissives and allocations from other branches.

Color Mechanizes

Problems in harmony are reduced to a formula with the color tools developed by the Container Corp. of America.

Problems in color harmony traditionally call for the trained eye of an artist, and his answers may reflect all manner of intangibles ranging from his latest business contacts to how his ductless glands are functioning. The limitations of this approach have long irked industrial users of color.

• **Applied Science**—Color use is a continuing major problem for Container Corp. of America. Egbert Jacobson, its art director, decided that something must be done to make color harmony an applied science available to anyone with the right tools. The result is a set of color tools, which some authorities consider a major achievement in the field of industrial color.

Container Corp. has published two color guides, identical in the information they contain but differing in the ease with which the material is available to the user. The less elaborate is the Color Harmony Manual, a 13-volume set of small books, which sells for $50. Twelve of these books contain 680 movable color chips covering the entire range of useful shades. The chips are so arranged that anyone faced with a problem in color harmony can select the numerical and alphabetical symbols of those colors which will meet his needs, then can pick out of the books the ¾-in. square chips showing these actual colors. The 13th book is a simple text explaining how to use the 12 color books.

• **Like Phone Index**—More elaborate, more expensive, but considerably simpler to use, is the Color Harmony Index,

a set of six mechanical indexes, like the familiar desk telephone index, containing 680 movable color chips 1-in. square. Each index contains 14 pages, and each page holds eight removable color chips, placed so that exact complements are adjacent. Thus, with each color is shown its most striking harmonious contrast. The user sets the index pointers to corresponding color symbols, then snaps open the compartments at the pages which reveal one complete range of colors that can be used together in perfect harmony. The set sells for $325.

• **Measure the Hue**—Basis of the Container Corp. color tools is the color research done by Wilhelm Ostwald, Nobel Prize winner of the early 1900's. Ostwald proved to the satisfaction of science that every color recognized by the human eye can be produced by measured quantities of hue (the chromatic element) and white and black. He proved, also, that accepted laws of sensation apply to color harmony as to musical harmony.

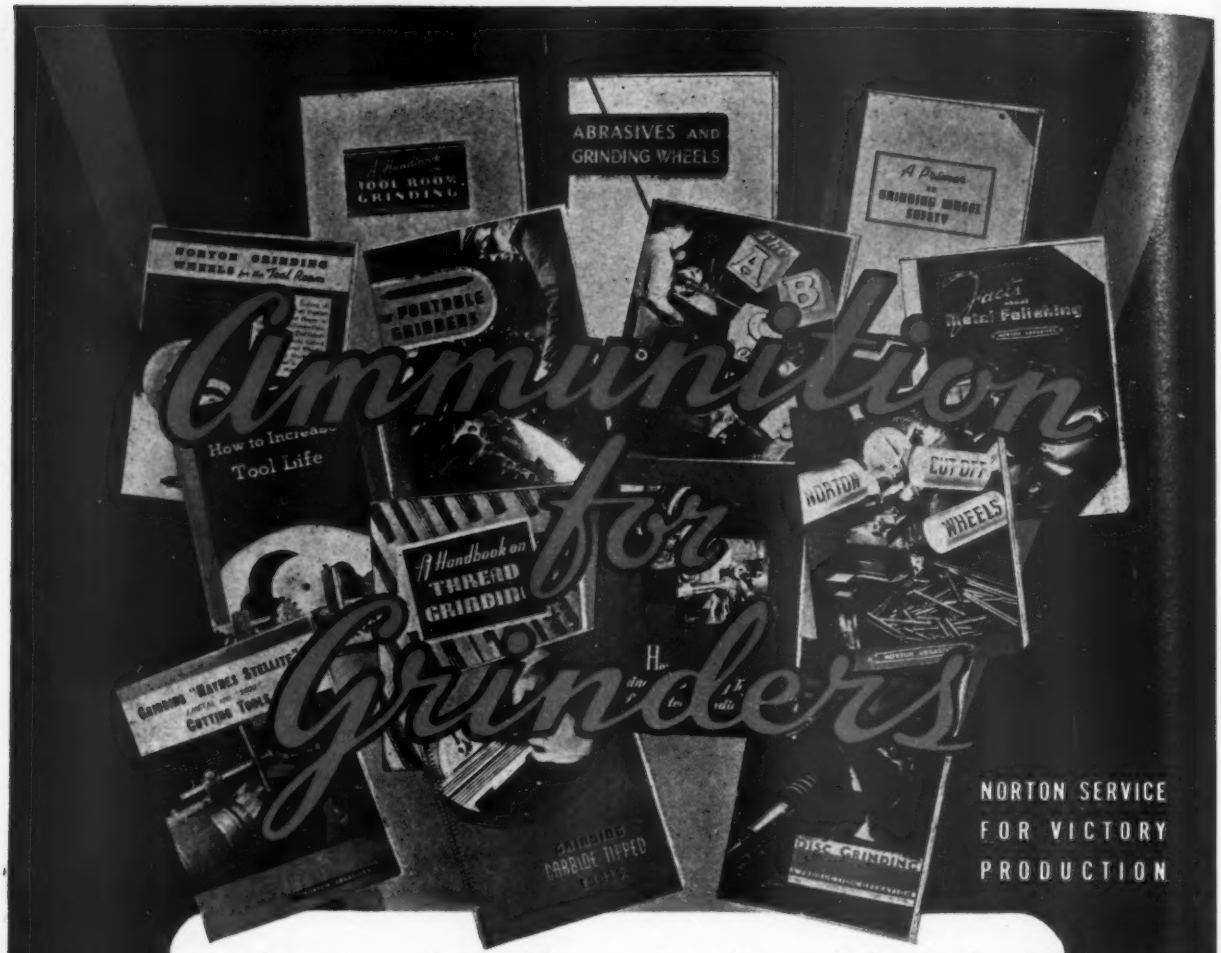
Jacobson took it one step further to the point of workaday usefulness. He rearranged it into such shape that anyone can use it with the simple explanation in the small handbook. His own description is that he attempted to provide a systematic arrangement of colors that are as easy to find as the keys of a piano, at proper intervals for color harmony.

• **Push-Button Control**—What anyone with a color job to do is really after is a practical method of matching and harmonizing colors for quick, sure use. Once he decides on a color he wishes to use, he identifies it by actual comparison with the color chips. If he has the mechanical index, he presses a few buttons and instantly has 24 isovalent colors in view. If he has the manual, he finds the right pages on which these isovalent colors appear. Either way, his result is identical.

Each color is an opaque pigmented film sprayed on a colorless transparent cellulose acetate chip. This provides a color standard with a dull surface on the side of the coating and a glossy surface on the other side, making possible comparison of flat colors with inks or wet paint samples. The colors were developed by Carl E. Foss, formerly of International Printing Ink's color laboratories, from colorimetric specifications, so that they appear equidistant.

• **Chips Are Removable**—Each chip is marked with a simple notation. They may be taken out of the manuals or indexes for matching and for making color combinations with other chips. The color symbols are codes in which the first figure tells the hue and the following letters the black-and-white content. Any two colors directly opposite in a section—as, a complementary yellow and blue—have identical letter pairs, but their hue numbers differ by 12.

In marketing the devices, Container



NORTON SERVICE FOR VICTORY PRODUCTION

Your factory's grinding problem may be with the carbide tipped tools

—or precision grinding of the cylindrical type
—or surface grinding
—or internal grinding

Printed information on these subjects is a part of Norton Service—along with motion picture instruction, training courses and engineering service.

All these types of service are available wherever needed.

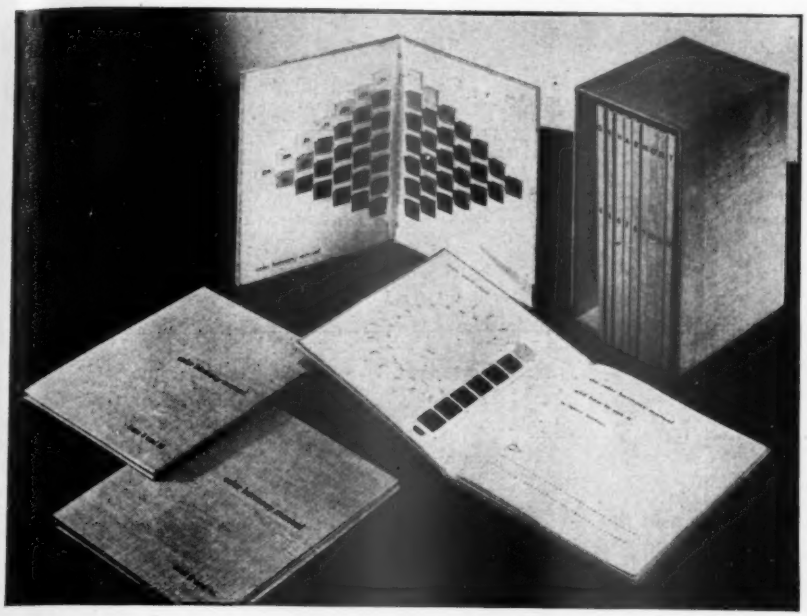
What subject covered by any of the above booklets is bothering you now?

★ ★ ★

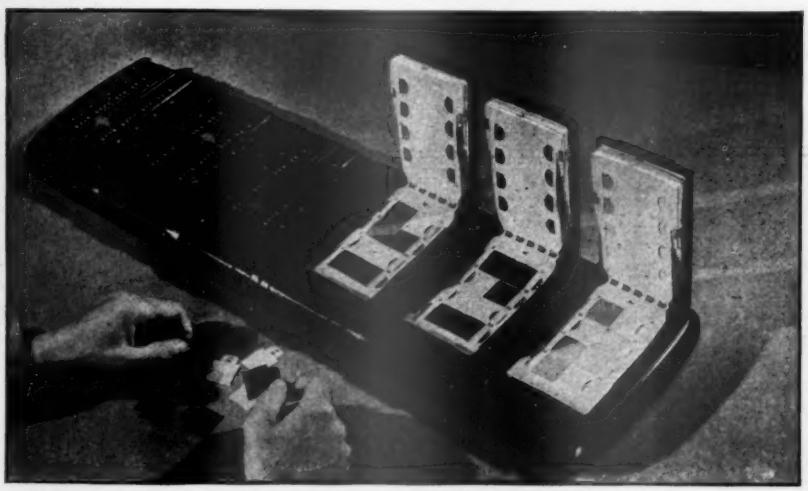
NORTON ABRASIVES

NORTON COMPANY • WORCESTER, MASS.

BEHR-MANNING DIVISION • TROY, N. Y.



Industrial art cleared a major hurdle when the Container Corp. of America developed color guides which reduce the problem of color-harmonizing almost to a mathematical formula. Operation of the Color Harmony Index (above) all but eliminates the human factor. At the press of a button, 680 colors are available to the designer for comparison. The colored chips are easily removable, like those in the 13-volume Color Harmony Manual (below), and are arranged so that exact color complements are adjacent to each other. For texture comparisons, the chips are glossy on one side, dull on the other. Prepared by the Color Laboratories Division of Container Corp. for its own designers, the manual and index now are available to other concerns. Over 40 manuals, half a dozen indexes, have been sold.



Corp. executives were actuated not by a profit motive, but by hope of recouping a substantial part of the heavy expense that it was necessary for them to go to in developing these color tools for the use of their own designers. Thus far, in a few weeks of desultory sales effort, they have sold to schools and to industrial users some 40-odd sets of the manuals and half a dozen sets of the mechanical indexes.

• **Diversified Clientele**—The purchasers are a representative sprinkling of schools, manufacturers, distributors, and service firms that depend heavily upon the use of colors. The list includes Armour & Co.; N. W. Ayer & Son; Bakelite Corp.; Botany Worsted Mills; Carson, Pirie, Scott & Co.; Eastman Kodak Co.; Goodall Worsted Co.; Higgins Ink Co.; S. C. Johnson & Son; Eleanor LeMair; Mary Lewis; Massachusetts Institute of Technology; Montgomery Ward & Co.; Pittsburgh Plate Glass Co.; Pratt Institute; Sears, Roebuck & Co.; and United Wall Paper Factories.

New engineerin

Electronic Magic

Explored in peacetime, the science of harnessing electrons has gone to war in a big way. Postwar benefits seen.

The annual fall meeting of the Institute of Radio Engineers in Rochester, N. Y., last week, usually a 2-to-3-day affair, was compressed into one long Monday session. Reason: Military secrecy has so blanketed the field of electronics that enough papers of nonmilitary significance could not be rounded up to fill the normal program.

• **Future Treasure**—Even had papers been available, it is doubtful if their authors could have spared the time from war-vital duty to present them. For electronics, the science of putting the elusive electron to work for a human master, is neck-deep in global war—to a degree which won't be comprehended until victory over the Axis unlocks the treasure chest.

From the simple radio tube to the so-called electric eye and television, electronics already had exerted enormous influence on the comforts of man before World War II. Drafted for the duration, it is making its chief contributions in the field of communications and industrial production control.

• **The Unknown Factor**—That much is known. What is not known is the extent to which prewar research in electronics has advanced under the impetus of a world crisis. In that category is the device embodying the television technique that might be used to detect the presence of distant foreign objects. How such an instrument might be employed as an automatic "aircraft spotter," or how, in a blind-flying plane, it might warn the pilot of hazards not visible to the human eye, is a subject which has intrigued engineers for years. Even its adaptability to artillery fire control (BW—Mar.16'40,p24) was studied.

Frequency modulation, another offspring of electronics, has been found useful for mobile field communications of limited range because of its high fidelity of transmission and immunity to static interference. From deeper exploration of the electromagnetic spectrum, it is not too much to expect that the end of the war will expose broad new vistas of safety for plane and ship travel.

• **Precision Guard**—In the industrial field, electronics occupies an important niche in the measurement and control of industrial processes to insure greater precision, production, and uniformity of product. Electronic welding, for example, affords a quicker, more uniform weld than ever was possible without the use of thyratrons to control the inten-

sity and length of the welding operation.

The phototube, or electric eye, has been pressed into service to count, inspect, sort, and grade, merely by use of the light reflected from, or cut off by, the product. For years, introduction of the phototube into hazardous machine operations has provided a safety factor of incalculable value by making it impossible to operate the machine until the operator has moved from the danger zone.

• **Induction Heaters**—Heat treatment of metals is another important industrial application, and this is being extended to lumber and plywood (BW—Oct.31 '42,p38) and to agricultural products. Electronic induction heaters, heretofore useful only in treatment of small objects, have been adapted to the more high-pressure needs of a war economy. Within the past fortnight, Westinghouse Electric disclosed perfection of an electronic process of mirror-finishing electrolytic tinplate (BW—Nov.7'42, p74) by passing it through an induction furnace, which heats the plate enough to melt the tin coating to a slick surface.

Principles of the diathermy machine—now licensed by the Federal Communications Commission (BW—Apr.25'42, p8) because it is potentially a radio transmitter—have been adapted to the heat treatment (curing, germinating, and dehydration) of agricultural products, including tobacco. Electronic furnaces employed to dry laminated plywood—several have been ordered on the West Coast—complete the process in a fraction of the customary time.

New Plastic Tube

Collapsible container made from Dow Chemical Co.'s Saran molding powder is offered by Elmer E. Mills Corp., Chicago

Another plastic collapsible tube (BW—Feb.21'42,p57; Oct.17'42,p76) has now been announced. The new offering, a product of the Elmer E. Mills Corp., Chicago, is made of Saran, Dow Chemical Co.'s vinylidene chloride material. Mills reports orders from big users but is letting them make their own announcements.

• **Won't Stay Rolled**—Saran is a translucent thermoplastic, but in the Mills product will be printed and lacquered all over to look exactly like the metal tubes which it replaces. Principal difference, from the consumer's standpoint, is that the new tube refuses to stay rolled. Elmer Mills asserts that this will save the user's money, because most people loosely roll up 15% of the contents of a metal tube and throw it away.

A further edge for the plastic tube is claimed because the lacquer will not scratch off in use, and the package thus remains fresh-looking.

Elmer Mills's plastic Saran tubes for toothpaste and shaving cream are more expensive than the lead-tin tubes they replace but volume production and experience may change the price picture.

• **Effect of Tin Rationing**—Pre-Pearl Harbor collapsible toothpaste tubes were pure metallic tin. Since rationing, tubes have been mostly lead, contain only 7½% of tin as liner. Makers of toothpaste, medications, or edible products who use tubes made of Saran may be expected to stress freedom from any possible taint of lead salts.

Mills is a custom molder, by injection or extrusion methods, of numerous plastic products. He uses whatever compound best fits any job, claims that Saran is particularly adapted to collapsible tubes, because it is chemically resistant to solvents, and because its low vapor transmission keeps the product in good condition.

• **How It's Done**—Saran comes in a molding powder, is extruded into a thin-section tube, which is then welded to a thicker shoulder and cap. The industrial user fills it on his regular filling machines, which he adapts, by a minor alteration, to pressure sealing at a temperature of 300-350 F., attainable either electrically or with 200-lb. steam. Cost of the Saran tubes is now considerably higher than metal tubes, but Mills sees no good reason why, with experience and volume, this cannot be worked down to a level below the price of all-tin or lead-and-tin tubes.

Next trick up the Mills plastic sleeve: an olive-drab, dull-finish bugle of cellulosic materials, already approved by the Army as acceptable in tone and other qualities.

Instrument of Instruction

A PRACTICE BOMB looks and acts just like the real thing until it reaches its destination. Then it goes up in a comparatively harmless puff of black smoke by which observers can check the accuracy of the "shot."

The practice bomb's interior is mostly sand, plus a five-pound charge of black powder, but it has to be as carefully made for Army use as if it were meant for the grim business of bombing the Axis.

When a bombardier draws a bead on a practice target and hits or misses it, he needs to know that the same bomb, packed with 100 pounds of "earthquake," would have landed on precisely the same spot.

Thanks to Rheem's careful methods of manufacture, practice bombs are serving to develop remarkable skill in our bombardiers and to demonstrate the uncanny precision of our secret bombsights.

For Today . . . Rheem's manufacture of practice bombs, of real depth bombs and of parts for real aerial bombs is a logical extension of the company's other wartime production—including many types of steel drums, barrels, boxes, and other containers; shells and shell casings, Liberty ships, and airplane sub-assemblies.

For a New Tomorrow . . . Rheem's skill in the manufacture of sheet-metal containers, a special objective of Rheem research, engineering and production in peace as in war, is also shown in the production of water heaters, tanks and other appliances of home utility. Out of Rheem's war experiences will come even finer products for the homes of the new America, post-war.

RHEEM MANUFACTURING COMPANY

13 Factories in the United States . . . 2 in Australia • Research and engineering on both coasts • Executive and Sales offices: Rockefeller Center, New York City Normandy Building, Washington, D. C. • Richmond, Calif.

NEW PRODUCTS

Woven Paper Burlap

Twisted kraft paper forms both the warp and the weft of two types of Paper Burlap—wide mesh and close mesh. The new development of Matthias Paper Corp., 165 West Berks St., Philadelphia, promises to replace hard-to-get jute burlap in many of its uses, ranging from wrapping for shipments to backing for floor coverings. Wide mesh comes in 36- and 40-in. rolls; close mesh in 36-in. only. Although the fabric is reasonably water repellent as it comes from the looms, quantity orders can be treated for increased water repellency, mildew resistance, flame resistance, etc.

Bull Clam Shovel

Many kinds of construction jobs come within the scope of the hydraulically controlled Drott Bull Clam Shovel, new product of Hi-Way Service Corp., 3841 West Wisconsin Ave., Milwaukee.

Since it is a modified clam shovel, it is already being used to remove mud

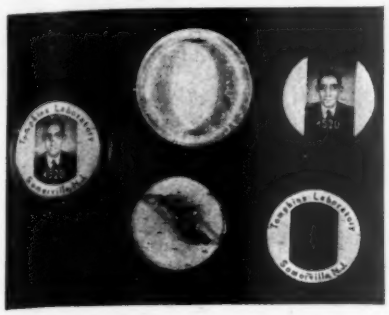
from roads and replace it with dry fill, to pull stumps and carry them to a disposal place, to extract boulders, to lay pipe and cable lines, to handle trash in "outdoor housekeeping." Since it is a bulldozer when the clam is wide open, it is being used on a wide variety of cut and fill work. The driver can tilt either end of the bull clam to a 24-deg. angle while the tractor is in motion.

The versatile outfit is built in sizes

to fit all makes and models of tractors. The smallest size has a heaped capacity of 1 cu.yd.; the largest, 4 cu.yd. Lifting capacities range from 3,000 to 12,000 lb.; lifting heights, up to 3 ft. off the ground. Maximum drop below ground level is 1 ft.

Plastic Badge

Four parts make up the new Tompkins Plastic Identification Badge: a com-



bination plastic ring and lens; a standard 35-mm. identification photograph; a "doughnut masking ring" on which an organization's name is printed; a combination plastic back and metal pin. When they are assembled in accordance with instructions furnished by the manufacturer, Stanley A. Tompkins Laboratory, P. O. Box 188, Somerville, N. J., they become an integral unit and are permanently sealed against the entrance of moisture.

Cement Dispersing Agent

Improvements in transverse strength, resistance to wear, and freedom from scaling are claimed for concrete pavements and floors made with "HP-7," the new cement-dispersing and air-entraining agent developed by the Master Builders Co., 7016 Euclid Ave., Cleveland. The material is essentially a balanced combination of an air-entraining agent (sodium lauryl sulphate) with a cement-dispersing agent (a derivative of lignin sulphonic acid).

Although a maximum dispersion of cement in a concrete mix has long been recognized as essential to the attainment of maximum strength and economy, the introduction of air is contrary to general engineering opinion and practice. The manufacturer explains that "small amounts of entrained air permit the use of lower water-cement ratios, reduce bleeding, and appear to add to the durability of the product—especially as regards scaling . . . As HP-7 is a mixture of definite compounds in definite proportions, its use is subject to perfect and complete control." Although the two ingredients can be used separately, it is nevertheless claimed that they work better in combination.

WAR BUSINESS CHECKLIST

The Week's Orders

A digest of new federal rules and regulations affecting priorities and allocations, price control, and transportation.

Construction Machinery

All construction machinery and equipment has been placed under complete allocation control. A specified list of 48 items may be manufactured hereafter only for military purposes, and civilian purchase of other types is permitted only by WPB authorization. (Order L-192.)

Lead

Due to the considerable improvement in the lead supply position over the last few months, WPB has removed restrictions on consumption of the metal for a group of essential uses—foil for industrial babbitt, lead-sheathed cables, gaskets, specified food packaging, and certain building supplies. (Amendment 2 to Order M-38-c.)

Machine Tools

In scheduling deliveries machine tool producers must give preference to the Air Services and their prime- and subcontractors up to the full 75% of their monthly deliveries of each type of tool that they are now required to schedule for the services generally. The remaining 25% may continue to be scheduled for delivery to nonservice purchasers in accordance with the terms of the original order. (Amendment 3 to General Preference Order E-1-b.)

Office Machinery

The limitation order concerning office machinery has been completely revised, and production quotas for 1943 have been issued. Types of machines have been classified into three groups (from two in the old order), and a fourth group of items formerly covered under the steel conservation order, M-126, has been added.

Manufacture of items on List A, including adding machines, shorthand writing machines, time stamp machines, and microfilm machines designed for office functions is prohibited after the end of this year, although assembly of parts now on hand is permitted until December, 1943.

Items on List B, including account-

ing, bookkeeping and billing machines, addressing machines, calculating and computing machines, duplicating machines, office composing machines, and time recording machines, may be produced throughout 1943 at specified percentages of 1941 output.

Manufacture of List C items—payroll denominating machines and certain types of dictating machines—is limited to orders approved by WPB.

Output of the 26 specified types of machines on List D is prohibited. (Order L-54-c, as amended.)

Glycerin

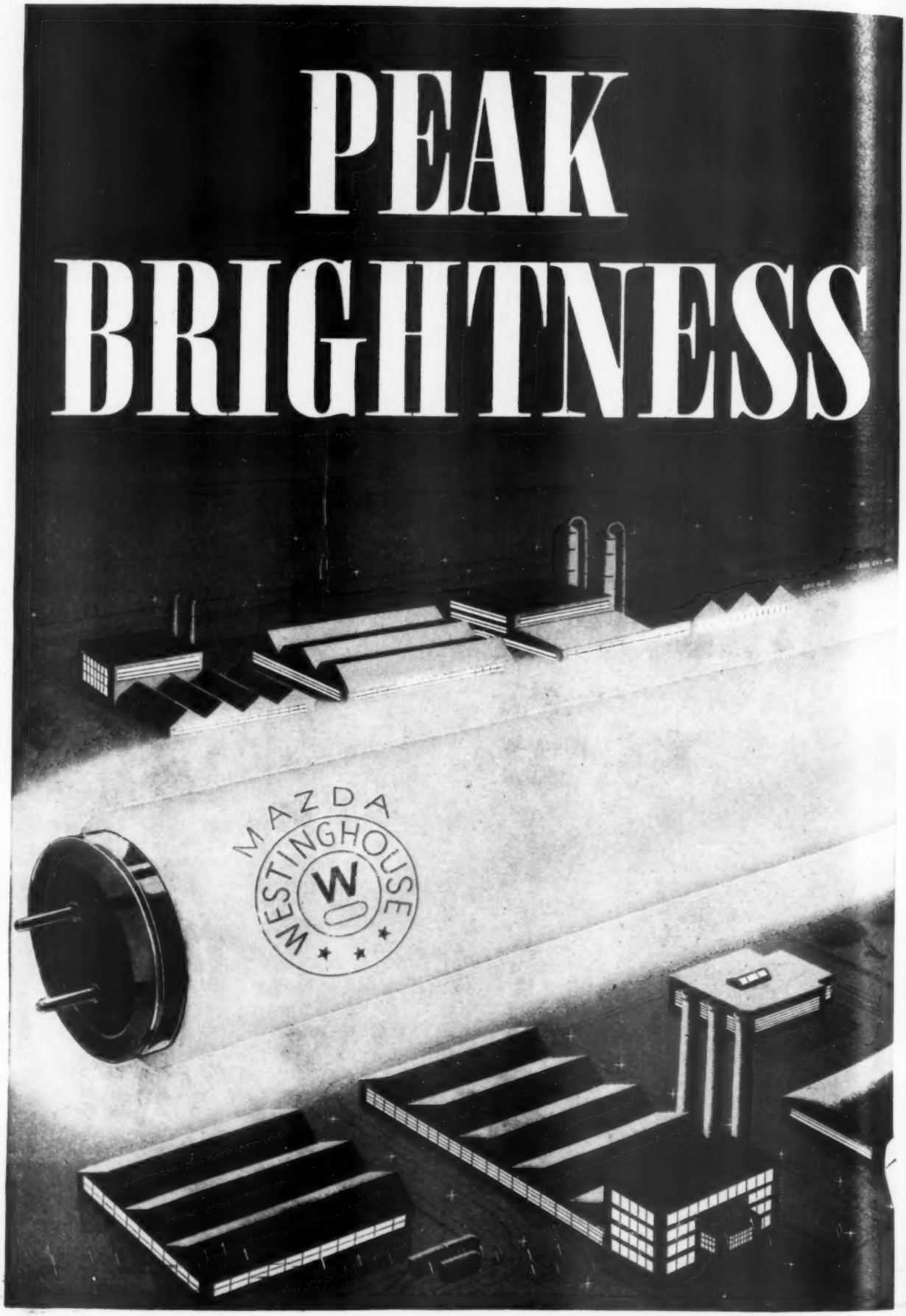
WPB has set up standards of production efficiency for the recovery of glycerin which, they estimate, will increase domestic output by from six to seven million pounds. As a condition to his being granted permission to saponify or hydrolyze any fat or oil in any process in which glycerin is produced, the producer must not permit more than 1% of glycerol to remain in the finished product and must recover 92% of the glycerol product of the spent lyes. In the case of fat-splitting, not less than 94% must be recovered. Refiners of crude glycerin must recover not less than 96% of the crude glycerol content. (Order M-193.)

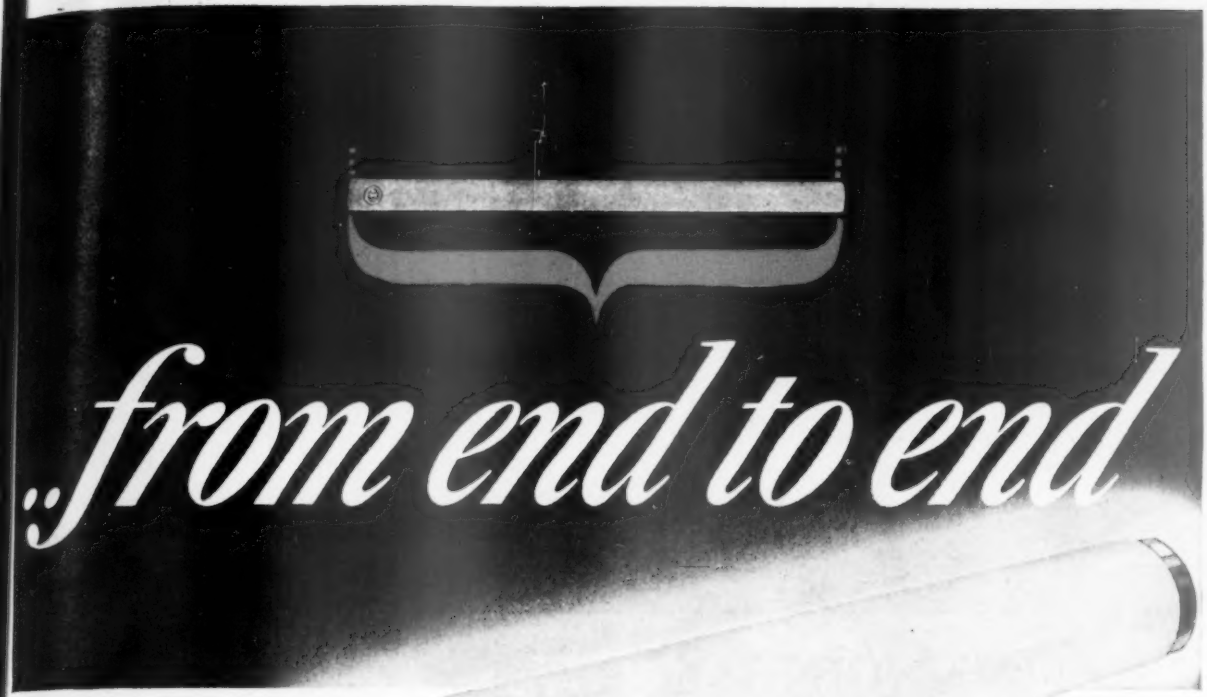
Galvanized Ware

Galvanized ware has been put under curtailment and simplification restrictions similar to those established for

POP-OUT PLIERS

Working inside the narrow confines of an aircraft wing section proved difficult at Murray Corp. of America until old-time jig shop workers Fred Vines and Joe Quinn, above, went to work on the problem. They devised a pair of pliers for inserting and removing skin clamps in the inner wing spaces at the end of extension brackets such as once were seen on telephones. Wing section workers at Murray now insert skin clamps in only a fraction of the time formerly required.


PEAK
BRIGHTNESS
MAZDA
WESTINGHOUSE
W

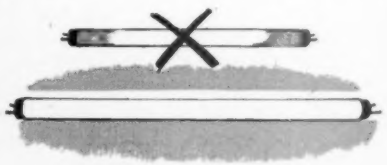


...from end to end

Westinghouse
MAZDA LAMPS

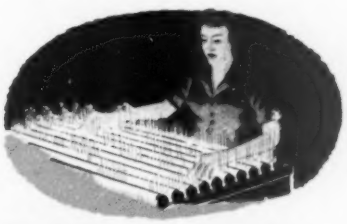
BRILLIANT PHOSPHORS
from end to end

Today's Westinghouse Mazda Fluorescent Lamps produce more light than ever before. This increased brightness is largely due to a new series of lamp manufacturing steps which build up the glow of fluorescent powders to a richer and more sparkling brilliance. It is *this* series of techniques that give Westinghouse Fluorescent Lamps a gleaming brightness from end to end.



STAY BRIGHT
from end to end

Out of countless hours of laboratory research, causes of early lamp discoloration have been determined and corrected. In Westinghouse Mazda Fluorescent Lamps, a more accurately controlled gas pressure, a more precise measurement of mercury, and a new method of treating cathodes —keep these lamps brighter from end to end.



SMOOTHLY COATED
from end to end

A better and more abundant light also results when the phosphor powder coating inside fluorescent lamps is applied smoothly and to just the right thickness. With microscopic accuracy, a specially-designed machine "paints" a powder film in Westinghouse Mazda Lamps that's *precisely* the right density and texture for maximum illumination.

enamelware (BW—Nov.7'42,p52). The order goes into effect in two sections—the first immediately and the second on Jan. 1, 1943. When it is in full effect, only six galvanized products may be produced—garbage cans, garbage pails, wash boilers, fire shovels, pails, and wash tubs. These may be made only in approved sizes and models. Production of the first four items is allowed up to 50% of output in the year ended June 30, 1941, and of the last two items up to 10% of such output.

Pails, buckets, and tubs designed especially for use as packing and shipping containers, and certain items conforming to government specifications produced for the armed forces, the Maritime Commission, and the War Shipping Administration are not affected by the order. (Order L-30-a.)

Deadlines

Nov. 25 is the last day for hotels, restaurants, hospitals, and other institutional users to register for coffee allotments.

After Dec. 1, no commercial vehicle subject to the Office of Defense Transportation's General Order No. 21 will be permitted to operate without a certificate of war necessity. Jan. 15 is the deadline for the first tire inspection required under the order.

Sellers of second hand machine tools or extras, or secondhand machines or parts must register with OPA on Form SO 20:3. No deadline has been announced yet, but OPA has warned that a date will be set shortly, and a penalty for late registration will be imposed.

Gas

WPB has revised the orders covering natural and manufactured gas to tighten control due to threat of serious shortages. The restrictions, which were previously limited to certain specified states, have been made nation-wide, equipment supplying less than 50% of the heating requirements of a dwelling is no longer exempt, and the schedule of deliveries to be followed by gas companies in case of a shortage has been made considerably more detailed to insure a supply of gas for war and essential civilian use. (Orders L-31 and L-174 as revised.)

Petroleum Equipment

All oil and gas producers must file inventory reports of all oil country tubular goods in their possession with the Office of Petroleum Coordinator on OPC form MA-2. Idle or surplus stocks are subject to requisition by WPB's Materials Redistribution Branch for allocation to WPB-authorized projects. Operators who fail to file the report will be denied authority to acquire or use any materials for oil or gas production.

Petroleum Sulfonates

Since the present supply of petroleum sulfonates is not great enough even to fill military needs, these products have been put under complete allocation and use control. (Order M-188.)

Industrial Diamonds

All industrial diamonds have been placed under strict allocation control. No deliveries in excess of five carats of rough diamonds or 50 carats of crushing bortz to a single customer in a single month may be made without a priority

Not jewels, but war-working diamonds —such is this million dollar stock of Maurice S. Dessau Co., industrial diamond firm.

rating of A-1-j or higher except on specific authorization from WPB. Previously sales of diamonds in excess of these minimums had to be reported to WPB, but were not subject to any control. (Amendment 2 to Order M-109.)

Gasoline Rationing

After nation-wide gasoline rationing goes into effect Dec. 1, ration coupons must bear the vehicle's license number to be valid. In the case of fleet operators using interchangeable books and non-highway users of gasoline, the name and address of the person to whom coupons were issued must be on the coupons.

Umbrellas

Umbrella production has been cut to 30% of 1941 output, and stringent restrictions on size, shape, and weight have been imposed. Women's umbrellas, which represent about 90% of total manufacture, are limited to four pounds of steel per dozen frames, exclusive of shafts and handles, unless they have steel tips and ferrules, in which case the limit is 4.35 lb. This compares with present average consumption of about 6.75 lb. per dozen frames. They

are also limited to no more than ten ribs of a maximum length of 20 inches.

Steel consumption in men's umbrellas is limited to five pounds per dozen frames exclusive of shafts and handles as compared with about eight normally. They may have no more than eight ribs of a maximum length of 25 inches.

Use of both steel and plastics for umbrella shafts and handles has already been prohibited by M-126 and M-154, respectively. (Order L-36.)

Zinc

Between now and Feb. 15, newspapers and others using zinc plates for printing may use 75% of this metal used in the corresponding months of 1941 instead of the 50% rate previously in effect. After Feb. 15, the permitted usage will again be reduced to 50%. (Amendment 1 to Order M-99.)

Local Transit

All street, suburban, and interurban electric railways not operated as a part of a general steam railroad system have been exempted from the passenger train schedule freeze of Sept. 26. The affected electric lines are thus allowed to add new schedules, to provide extra or special trains or cars that are not scheduled, and to add extra sections to scheduled trains or cars. (General Permit ODT 24-4.)

Dairy Products

To assure a steady supply of dairy products for the armed forces and Lend-Lease (BW—Nov.14'42,p79), WPB has assigned higher preference ratings to processors of dairy products and certain classes of egg processors for equipment, maintenance, and repair materials. Material required for emergency repair to prevent spoilage of commodities because of an actual breakdown of operations gets an AA-2x rating. All other material for repair, maintenance, or operation gets a rating of AA-5. (Order P-118, as amended.)

Stoves

To meet the acute shortage of coal- and wood-burning heating stoves, WPB is permitting increased output of these products between now and Jan. 1. During the same period, manufacture of coal- and wood-burning cooking stoves is prohibited, thus assuring that no additional critical materials will be consumed. (Amendment 4 to Order L-23-c.)

Sugar

Newly established restaurants, mainly those serving war industries in isolated areas, that are running into difficulty getting bakery products from outside sources may under certain circumstances apply to the OPA for an increased sugar allotment to use in doing their own baking. The user must have the equipment to do all his own baking except bread, rolls, and crackers; he must agree to serve his own bakery products with at least 50% of the meals served; no meal served may include any off-premises bakery product except bread, rolls, and crackers. If these conditions are complied with, he may receive an extra pound of sugar for each 42 meals served.

Dried Fruits

Dried apples, apricots, peaches, pears, prunes, and raisins frozen in the hands of packers by Order M-205 may no longer be released automatically to civilians 60 days after the filing of the report. Permission to release these stocks must now be obtained from WPB. (Amendment 1.)

Barbed Wire

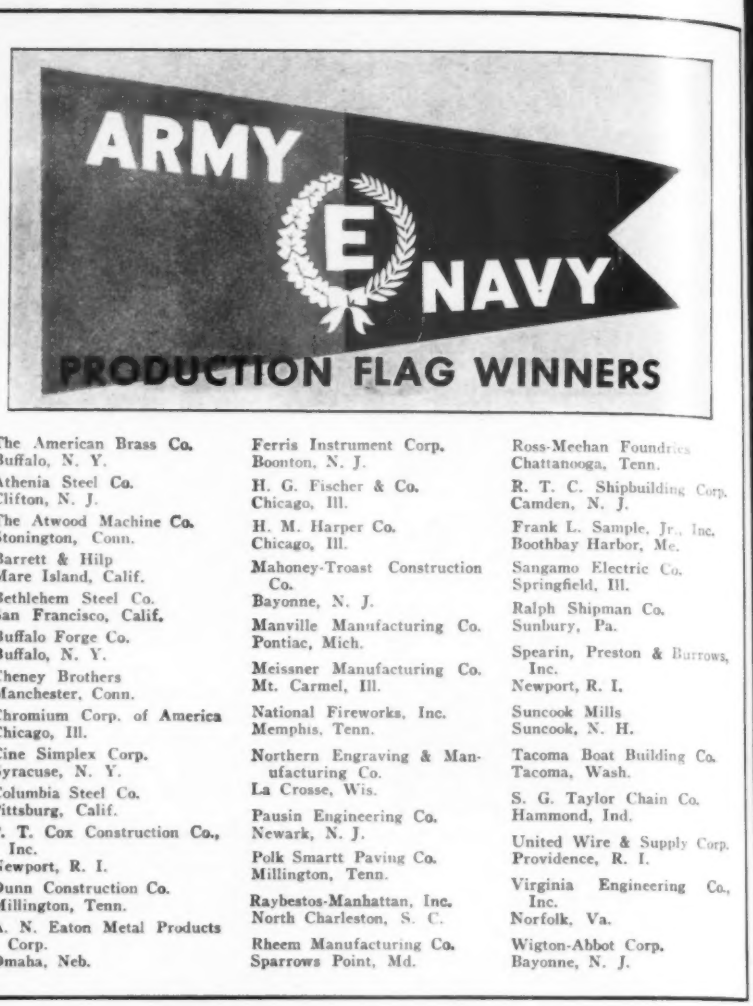
Manufacture of nonessential types and styles of barbed wire, wire fencing, and poultry netting has been banned by WPB. Barbed wire production has been reduced from the eight styles usually obtainable to only one approved type, and permitted styles of fencing, netting, and flooring have been reduced from over a hundred to about a dozen. (Schedule 3 to Order L-211.)

Vegetable Oils

Price ceilings on refined soybean, peanut, and cottonseed oils for nonedible industrial purposes have been raised by ½¢ a lb. The increase is allowed to give sellers of oils for these purposes price equality with sellers of oil for edible use who get a ½¢ a lb. subsidy from Commodity Credit Corp. (Amendment 17 to Revised Price Schedule 53.)

Other Priority Actions

Defense Supplies Corp. will purchase stocks of **shellac** held in this country. Offers must be received by Mar. 1, 1943. . . . Amendment 2 to M-231 prohibits delivery of chemical **fertilizer** for 1943 use before Dec. 1. . . . Order L-177 cuts **wallpaper** output 50% and provides for simplification and standardization of styles and colors. . . . Sale of rubbing



The American Brass Co.
Buffalo, N. Y.

Athenia Steel Co.
Clifton, N. J.

The Atwood Machine Co.
Stonington, Conn.

Barrett & Hilp
Mare Island, Calif.

Bethlehem Steel Co.
San Francisco, Calif.

Buffalo Forge Co.
Buffalo, N. Y.

Cheney Brothers
Manchester, Conn.

Chromium Corp. of America
Chicago, Ill.

Cine Simplex Corp.
Syracuse, N. Y.

Columbia Steel Co.
Pittsburg, Calif.

P. T. Cox Construction Co., Inc.
Newport, R. I.

Dunn Construction Co.
Millington, Tenn.

A. N. Eaton Metal Products Corp.
Omaha, Neb.

Ferris Instrument Corp.
Boonton, N. J.

H. G. Fischer & Co.
Chicago, Ill.

H. M. Harper Co.
Chicago, Ill.

Mahoney-Troast Construction Co.
Bayonne, N. J.

Manville Manufacturing Co.
Pontiac, Mich.

Meissner Manufacturing Co.
Mt. Carmel, Ill.

National Fireworks, Inc.
Memphis, Tenn.

Northern Engraving & Manufacturing Co.
La Crosse, Wis.

Pausin Engineering Co.
Newark, N. J.

Polk Smartt Paving Co.
Millington, Tenn.

Raybestos-Manhattan, Inc.
North Charleston, S. C.

Rheem Manufacturing Co.
Sparrows Point, Md.

Ross-Meehan Foundries
Chattanooga, Tenn.

R. T. C. Shipbuilding Corp.
Camden, N. J.

Frank L. Sample, Jr., Inc.
Boothbay Harbor, Me.

Sangamo Electric Co.
Springfield, Ill.

Ralph Shipman Co.
Sunbury, Pa.

Spearin, Preston & Burrows, Inc.
Newport, R. I.

Suncook Mills
Suncook, N. H.

Tacoma Boat Building Co.
Tacoma, Wash.

S. G. Taylor Chain Co.
Hammond, Ind.

United Wire & Supply Corp.
Providence, R. I.

Virginia Engineering Co., Inc.
Norfolk, Va.

Wigton-Abbot Corp.
Bayonne, N. J.

If you have Air Conditioning or Refrigerating Equipment that is not engaged in War Work...

★ ★ ★ *OFFER IT TO YOUR COUNTRY NOW!*

We, at York, are turning out for the war effort all the mechanical cooling equipment we can, as fast as we can. *But it is not enough.* It's not enough to furnish American fighters with the ammunition and bombs and motor fuel and rubber and food that they must have... for refrigeration is an essential tool in the manufacture of all these vital war materials, and many more.

We, who for 57 years have urged you to *buy* such equipment, now ask you to *sell* it. York Branch offices throughout the nation are at your disposal to assist in placing your machines where they will make their utmost contribution to Victory. Call the York office nearest you.

York Ice Machinery Corporation, York, Pennsylvania.

YORK REFRIGERATION AND AIR CONDITIONING FOR WAR

HEADQUARTERS FOR MECHANICAL COOLING SINCE 1885

MARKETING

alcohol is restricted to doctors and certain other specified allowable purchasers by Amendment 2 to M-30. . . . Production of low-pressure **cast iron boilers** built for exclusive use of oil or gas for fuel is prohibited except for essential purposes (L-187). . . . Production of metal **plastering bases** and accessories is prohibited for any purpose except war procurement (L-59-b). . . . Inventory restrictions on **sodium sulphate** (salt cake) are removed by Amendment 7 to M-161.

Other Price Actions

Uniform distributors' margins on **oil meal and oil cake** are set by Amendment 61 to Supplementary Regulation 14, resulting in an average saving to farmers of $3 to $4 a ton. . . . Manufacturers of **paperboard products** may now use their October, 1941, price lists to determine their ceilings (Amendment 1 to Regulation 187). . . . Ceilings on **toilet tissue and paper towels** are cut back from March, 1942, to October, 1941, by Regulation 266. . . . Sellers of standard **ferromanganese**, made from dutiable ore, to a government agency for export may charge the full $135 per gross ton maximum price only if they assign the duty "drawback" privilege to the agency (Amendment 3 to Regulation 138). . . . Dollars-and-cents maximums have been set on California **redwood** (Regulation 253), **sponges** (Regulation 267), dry edible **beans** (Regulation 270), and canned **salmon** (Regulation 265).

Gasless Shopping

Motor fuel rationing has new problems for department stores. Many try mail order and phone schemes.

Come Dec. 1, with, at long last, nation-wide gas rationing, big city department stores all over the country will have to tackle the problem that is already worrying metropolitan retailers in the East: How to keep the trade of suburban and out-of-town customers who can't afford to blow a month's allotment of precious gas coupons on a day's shopping?

• **No Fixed Pattern**—Experiences of eastern retailers in finding an answer have differed widely thus far. It's likely that experience of stores in other areas also will be undecisive—what works for one won't work for another. Retailers in cities cross-hatched with trolleys, subways, interurban train, and bus service have less cause to worry than those in cities accustomed to a daily inpouring of autos. Thus, Boston stores have given less attention to gasless customers than have those in Atlanta.

The stores which cater, mostly on a cash basis, to a lower and middle income clientele are noticeably less worried than those whose charge account customers exchanged carriages for limousines and roadsters 20 years ago. The manager of one big cash-and-carry emporium in New York said frankly, "We aren't worried about customers; we've got plenty, and plenty more where those come from—all within a nickel subway ride. What we're worried about is merchandise to sell 'em."

• **Wooing Housewives**—Exactly the opposite viewpoint comes from the manager of a specialty shop that considers charge accounts the backbone of its business. "Our sales are the highest they've been in 13 years, mostly because we're getting a lot of new customers, people who didn't have the money to shop here five years ago. But they aren't going to stick with us when the boom is over. That's why we're concerned about hanging on to our old customers—and a lot of them live out of town and have been pretty well marooned by gas rationing."

Efforts to make shopping easier for housewives with parched gas tanks run the gamut from opening special suburban branches to setting up bicycle racks in hopes that a few courageous souls will have the stamina to pedal 30 or 40 miles. Most universal solution to the problem has been intensified promotion of mail and phone order services. Virtually all retailers in the gasless area report sharp increases in such orders. They attribute this partly to the fact that women are busier these days, partly to wartime displacements that have moved many people away from their familiar shopping grounds, but mostly to the great drought.

• **A Few Tricks**—In Knoxville, Tenn., Miller's department store takes full-page newspaper space to advertise "A 'Tireless' Way to Shop—By Mail." S. H. George & Sons, also in Knoxville, reminds customers "The mailman's tracks and the telephone's wires daily beat a path to George's."

J. N. Adam & Co. of Buffalo, N. Y., headed an ad showing a housewife posting a letter, "Shop at J. N.'s by Mail. . . . Gas Rationing Needn't Keep You From Saving." In Newark, N. J., L. Bamberger & Co. has taken full-page space to advertise its phone service, enabling suburban customers to telephone special exchanges free. A number of stores that formerly shied from this type of service are now instituting it in an effort to build up trade.

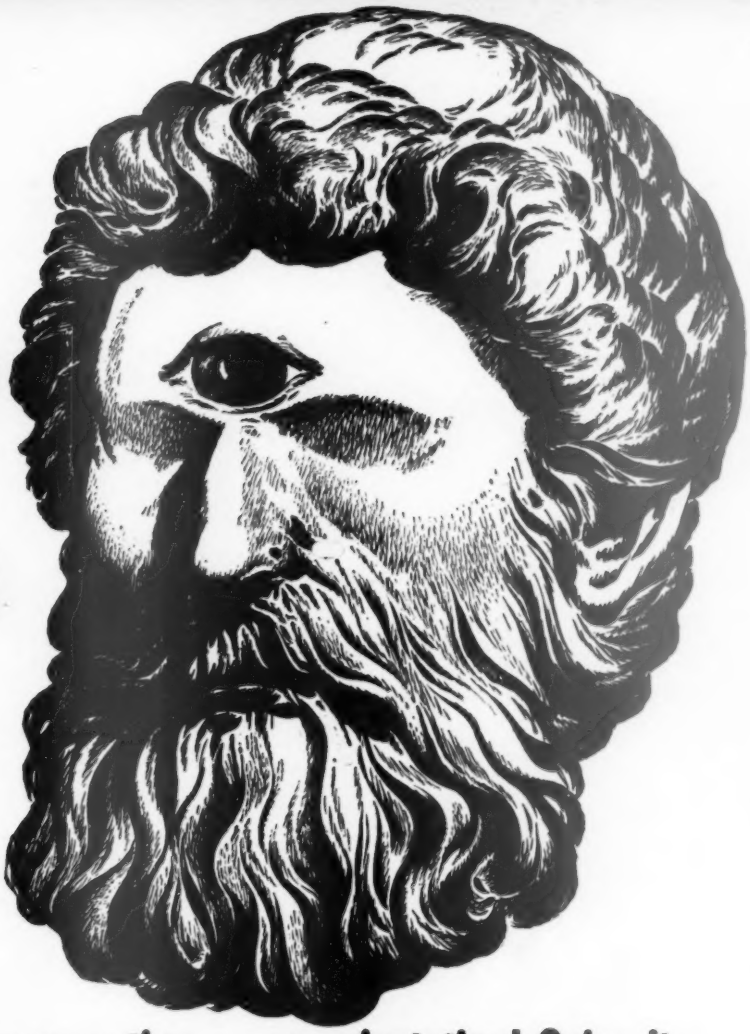
Stores are going out of their way to tell customers how accessible they are by train, bus, and trolley. Virtually all big New York City stores periodically

PAPER SAND BAGS

Gunnysacks were not obtainable when a Southern California oil company decided last December to provide an air raid shelter for employees of its production field office. So the management got the local plant of Bemis Bro. Bag Co. to make up some special multiwall paper bags with asphalt-laminated outer and inner sheets. These bags were filled with sand to protect a steel shelter. They have stood out in the weather ever since without apparent deterioration. Consequence of their proved durability has been sale of many thousands of this item for military and civil protection installations. Now the manufacturer is looking around for commercial applications, has found none to date.

Cyclops was not

nagement material



. . . no perspective . . . no orientation! Going it alone, he came to no good end! Today's management-man gets perspective from Business Week's reporting of each week's new tide of business news. Read BW to make *your* decisions: and use BW to influence *others'* decisions: advertisers *are* using it more than *any* other magazine but two . . . 2048 pages in 10 months!

BUSINESS WEEK—*The News-base of Management's Decisions*

Advertisers' War Effort

Vice President Charles G. Mortimer, Jr. of General Foods Corp. was elected board chairman of the Association of National Advertisers, which held a two-day wartime meeting in New York last week. Other new officers are C. C. Carr of Aluminum Co. of America, vice chairman, and the following directors: Thomas H. Young of U. S. Rubber Co., Robert V. Beucus of the Andrew Jergens Co., H. H. Simmons of Crane Co., and Gordon E. Cole of Cannon Mills, Inc.

Purpose of the sessions, attended by representatives of 350 advertisers, was to further gear product promotion to war trends. Government spokesmen informed conferees that Washington plans no large-scale advertising subsidies, urged continued donation of time and space to morale, production, and conservation.

Principal speakers were Production Chief Donald M. Nelson, who warned business men of a long war ahead; Rubber Czar William M. Jeffers, who denounced loose optimism in his rubber campaign; British Production Minister Oliver Lyttleton, who described the mighty armada that had been needed for the Allied African offensive.

Charles G. Mortimer, Jr.

To advertising men, the meeting's headlines were results of a survey which show 80% of the reading public believes manufacturers are doing a good war job but feel boasting about industrial accomplishments should be soft-pedaled; 87% feel advertising should continue even though products are not presently available.

run ads stressing their location. Hochschild, Kohn & Co. of Baltimore combines angles with verses like:

"This little woman went shopping,
This little woman stayed home.
One got to Hochschilds by trolley,
One did her buying by phone;
But both little women cried—Hip, hip, hooray!
There's no store like Baltimore's own."

• **Mailing Problems**—Big stores are inclined to boast of the all-inclusiveness of their stock, point out that one grand excursion can save a lot of little shopping trips. Bambergers is plastering New Jersey billboards with ads proclaiming the "One Stop for Everything."

Big trouble with increasing mail and phone order business is a likely overload on delivery services. About the only way to get around that problem is to make customers wait longer for deliveries and use more parcel post. Some stores are now mailing small items even within their delivery areas. In this connection, the Post Office Department has indicated it can stand a considerable increase in department store mailings without overstraining.

• **Branches Closed**—Some retailers shy off mail order business, because they fear it will involve more returns and more headaches generally. But some stores, like New York's Franklin Simon, which has had a thriving mail order trade for over 40 years, claim returns are lower than on store purchases.

In September, Best & Co., New York, closed its big store in suburban Westchester County because it was in an off-center location—dependent on gas and rubber, substituting three smaller stores in White Plains, Stamford, and Greenwich. Last month, a fourth was added in Bronxville. In September, Franklin Simon stocked four small shops in New York, New Jersey, and Connecticut suburbs with sample merchandise. All four now are closed. Franklin Simon found that customers had an easier time getting in to their metropolitan New York store—well served by public transit systems—than in reaching the new suburban outlets.

• **Business Moves**—Several stores with suburban branches report similarly that, contrary to expectations, it is trade in the out-of-town locations that has suffered most from gas rationing.

For a number of years, Franklin Simon has sent representatives on tours of outlying districts to show sample stocks to charge account customers notified of their coming by mail. Now the store is doing this even in the New York suburban area.

• **The Final Straw**—One New York store had a large branch in Westchester which most customers had reached by auto. When gas rationing came along a chauffeur in a station wagon was sent to meet all trains that might be carrying customers. The store soon found that most customers took advantage of the service, regarding the chauffeur and wagon as personal property. Said the store manager, "When a woman asked the driver to take her to our competitor across town, we quit."

Greetings to All

That's what a war boom means to card industry which is over the top. Few changes made to fit the times.

The Greeting Card Industry—trade association of 100 publishers—is celebrating the 100th anniversary of the first Christmas card. More important, it's celebrating the biggest card boom in history. Nearly 3,000,000,000 cards—an average of 20 to every person in the United States—will have been sent out by Americans during 1942. For the first time since pre-depression 1929, sales will total more than $50,000,000.

Sales of around 2,500,000 cards looked good in 1940 and 1941, but now the industry looks for increasing prosperity as more families are disrupted. Another thing pointing to birthday and holiday profits for greeting card publishers is WPB's order restricting telegraphed greetings and congratulations to members of the armed forces stationed overseas (BW—Nov.14'42,p50). Postal alone handled 2,000,000 Christmas greetings last year.

Greeting cards are promoted not only for their sentiments but also as time savers. Although over 50% of all greeting cards are sold at Christmas and New Years, prepared messages are available for every occasion from Mother's Day to divorce or a tonsilectomy.

Most of the billion and a half Christmas cards on the market this season are traditional in design and sentiment—if anything, more traditional than usual. "Peace on Earth" may not seem the most appropriate wartime theme, but card makers point out that that wish has been selling for 2,000 years, and they see no reason to abandon it for the 1942 trade.

Although preparation of the cards now displayed on stationery counters began 18 months ago, few were scrapped because of the war. New lines have been added, but conversion amounted to little more than the revamping of such blatantly cheerful lines as "Merriest Christmas ever, and a rousing New Year!" or the sudden irony of a silver-winged airplane over the phrase "Clear

JUMPING THE GUN

HUNDREDS of these South African armored cars, built on Marmon-Herrington *All-Wheel-Drive* converted Ford chassis, are helping speed the day of Victory for allied arms.

The Union of South Africa saw the possibility of inter-allied co-operation in the war program at an early date, and, sensing the urgency of the situation, had the courage for promptness of action that has been of inestimable value to the United Nations.

An outstanding example of co-operative activity is in the construction of armored cars which have played an important part in the battles of North Africa.

The Ford Motor Company of Canada and the Marmon-Herrington Company furnish the chassis, and parts necessary for conversion of standard Ford trucks

to All-Wheel-Drive. The chassis are assembled, the armor plate is fabricated, and the superstructures are built in South Africa. Manned by British, South African, Australian, New Zealand and Indian troops, these units have contributed their part in blocking Axis plans in the African desert.

We hear a lot these days about a "disjointed" war effort—but, arm-chair strategists to the contrary notwithstanding, our industry is doing a pretty good job. It takes time to organize the successful prosecution of a global war, and thanks to the heroic defenders of Britain, China and Russia, we have had that time.

Marmon-Herrington products are participating in the struggle on all fronts. *All-Wheel-Drive* trucks, track-laying artillery tractors and tanks, built by this company, were among the first to see combat in Europe, Africa and the Far East. Constantly improving facilities and skills guarantee accomplishments which we, ourselves, never would have believed possible a year ago. The same grade of accomplishment, multiplied a thousand times all over America, will insure final victory for allied arms, and an enduring peace.

MARMON-HERRINGTON

INDIANAPOLIS, INDIANA

UNDERGROUND

where production begins—

Cleveland S11 Stoper being operated in a Colorado metal mine

CLEVELAND ROCK DRILLS ARE ON THE JOB!

★ America's all-out production drive does not begin on the busy assembly lines of the country's plants. Production actually starts in the mines, in the extraction of the valuable minerals, so essential for all kinds of military and civilian equipment.

In hundreds of mines throughout the nation, Cleveland Rock Drills are doing their part in this big job. They are speeding the drilling work, operating economically, and keeping maintenance delays and costs to a minimum.

The thorough dependability of Cleveland Rock Drills can be of great help to anyone engaged in mining or construction work. Write us about your problem; an experienced Cleveland engineer will advise you without obligation.

CLEVELAND ROCK DRILL EQUIPMENT *includes:*

FOR MINING: sinkers, drifters, stopers and jumbo drill rigs.

FOR CONSTRUCTION: sinkers, paving breakers, clay diggers, tampers, wagon drills. Also a complete line of accessories.

Write for Catalog.

BUY WAR BONDS

THE CLEVELAND ROCK DRILL CO.

Subsidiary of The Cleveland Pneumatic Tool Co.

CLEVELAND, OHIO

Branch Offices in All Principal Cities and Mining Centers

ries in '42" (which consumers didn't ave the nerve to mail last year when here wasn't time to revise for the na- ion's first war Christmas).

War Stamp Christmas cards (BW—Oct.24'42,p82), which have the blessing of the Treasury Department, are one of his year's most important innovations. Religious sentiments appear in increased numbers, and a line of patriotic cards many personally directed to men—and women—in the service) supplements the year-in-year-out expressions.

FTC Turns Coat

A new tough policy may foreshadow drastic changes in advertising. Dr. James J. Durrett sparks drive on drugs.

In challenging the validity of Ipana toothpaste advertising claims, the Federal Trade Commission has shown a new militant side which really has the drug trade frightened.

• **Only the Beginning**—One by one, FTC has tackled some of the biggest outfits in the drug field, including Listerine, Bromo Seltzer, and the powerful cigarette makers (BW—Aug.15'42,p24), alleging their advertising to be false in many respects. What's next is anybody's guess, but it's sure that FTC is only beginning to crack down on a long controversial subject.

The trade is scared because it thought FTC was under its thumb. Two years ago, predictions that the commission would get tough might well have drawn gales of laughter. But now it's a different story, and even the most reactionary drug spokesman will admit that a phenomenon—if not a miracle—has occurred.

• **FTC's Dislikes**—The Ipana complaint not only reaches for the maker, Bristol-Myers Co., but also two advertising agencies which handled Ipana copy—Pedlar & Ryan, Inc., and Young & Rubicam, Inc. Statements to which FTC objected were that the toothpaste would remove yellowish stains, would treat or prevent "pink toothbrush," and Ipana's claims that the modern American diet allowed gums to grow lazy. There's been no dietary change that would affect gums, snorted FTC.

Significance of FTC's campaign is the general effect it may have on drug and cosmetic promotions, the most prolific and consistent in the country. Should the commission prevail in court, it may eliminate ads for such products as Bromo Seltzer—although this seems unlikely—or reduce advertising to a state of mild generalities.

• **Enter Durrett**—Widely, but not officially, identified as the spark plug of FTC's new policy is Dr. James J. Dur-

"CARTWRIGHT, THERE MUST BE SOME QUICKER WAY TO LOCATE JONES!"

When Dr. James J. Durrett came to Federal Trade Commission from the Federal Food and Drug Administration, he didn't forget to bring along his reputation as a fighter—which he is living up to again.

rett, director of the commission's medical advisory division. Less than two years ago he came from the Federal Food and Drug Administration, which the drug trade long had feared would get control of its advertising. Just how Durrett became associated with the mild politicians of FTC has remained a mystery, because he is an outspoken fighter and never has been too popular with the drug industry.

Schooled in the intricacies of political battle—having been a health officer in the Crump administration at Memphis—Durrett is expected to maintain control of FTC's campaign. Should he win his first big tilt with the drug and cigarette industries, a new era in advertising undoubtedly will dawn.

STORES ON THE AIR

San Francisco department stores, with the exception of O'Connor, Moffatt & Co., have always been the despair of radio time salesmen.

• **Group Takes to the Air**—Within the last couple of months, however, two tough problems have arisen to plague the store managements, and their sales resistance finally broke down. Now seven of them are joining in a co-operative program along with the new underground Union Square garage, located in the heart of the shopping district. A weekly program called "San Francisco's Open Door" is now being broadcast from Columbia's station KQW.

• **Winning New Customers**—One of the chief reasons why the stores went on the air is that, like all war boom centers, the San Francisco bay area is swamped

with strangers. Most of them are not familiar with the stores and don't know where to shop.

Another problem was to inform the public of a change in shopping hours. Many of the leading stores recently adopted the policy of staying open until 10 p. m. on Thursdays to accommodate war industry workers.

Makeup in a Box

OPA failure to regulate holiday packages puts cosmetic makers on the spot. Gen. Max. takes control.

It begins to look as though Christmas will be here before OPA gets around to issuing a regulation covering special Christmas packages for cosmetics. Such a regulation has, in fact, been written. But somewhere in OPA it stalled and may never appear.

• **Headaches Avoided**—What got OPA to thinking about a cosmetics regulation is the fact that Christmas packages are a big feature in the industry. Furthermore, boxes and bottles—especially for perfumes – are usually elaborate enough to have some intrinsic worth, which has to be added to the product's value. By issuing a special regulation, OPA would avoid the trouble of processing hundreds of applications for special prices, and manufacturers would, for their part, be relieved of the headaches of a lot of paperwork.

But now that OPA's tardiness apparently has overcome its good intentions, manufacturers will have to work out their prices in accordance with the framework of the General Maximum Price Regulation. Wholesalers and retailers, however, have been equipped with a specific order covering not only cosmetics, but any sort of Christmas packages (so long as manufacturers or processors put them up).

• **Price Yardstick**—This regulation—labeled Supplementary Order 24—stipulates:

(1) If the package is made of ordinary paper or cardboard and contains articles (like cigarettes) also sold in other seasons, the ceiling is the combined ceilings of the articles in the package.

(2) If the package itself is a special job, or if its contents are special Christmas items, the merchant may determine a special ceiling under Section 3 (a) of Gen. Max. This section provides that he may take some comparable article sold in March, determine its markup on a replacement-cost basis, and then apply the markup to the cost of the ceilingless article.

• **Bargain Deals Out**—The foregoing rules expire after Jan. 15, 1943, and, incidentally, do not include nylon hose

WOODEN MANHOLE COVER

Tremendous housing developments for war workers in Los Angeles county and the consequent expansion of the sewer system is responsible for the development of wooden manhole covers, which are now being made in several shapes—round, square, or hexagonal. The covers are laminated plank-built affairs and are pressure-treated by a Wolmanizing process for preserving the wood.

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packages. OPA believes there have been so many shenanigans in the nylon field already—such as forcing the consumer to buy rayon hose along with nylon—that combinations and packages are frowned on, and no legal provision for ceilings has been made.

Meantime OPA has warned cosmetic makers and distributors that "tying sales plans," "deals," and "combination offers" are forbidden unless the identical proposition was a general trade practice in March, 1942. OPA wants to eradicate the tendency toward full-line forcing—that is, forcing the buyer to take goods he doesn't want as a contingency for satisfying his real needs.

BUYING HABITS CHANGE

Lower grades of merchandise have hit lean days in the Knoxville (Tenn.) market. Such is the conclusion of J. B. & W. G. Brownlow, realtors, who keep a sensitive finger on the pulse of the mercantile firms leasing space in their mile-long stretch of store frontage (BW—Jan.21'39,p18).

Higher wages for families of lower income and higher taxes for those in the upper brackets have modified the spending habits of both groups. The

"poor" are spending up and the "rich" spending down to a point where the popular emphasis is on medium-priced merchandise.

The change has come about, observe the Brownlows in their current monthly letter to tenants, without any noticeable shift of patronage. Lower-income groups still patronize the stores that served them in the past, but they are demanding a higher grade of merchandise. Higher-income groups have not sought out the cheaper stores, but they "are very consistently shortening sail." With an eye on the future, the Brownlows predict that "new taxes will level them down."

In consequence of changed buying habits, popular-price stores find frequently they can't keep pace with demand for higher-quality wares.

Trees Are Out

And that's where they'll probably stay this Christmas as labor shortage grows. None is being cut in Canada.

Unless you cut down the little blue spruce in the front yard, chances are you won't have a Christmas tree this year. Shortage of farm and migrant labor and the lack of transportation facilities for nonessentials combine to reduce the supply from last year's figure of over 10 million trees to a mere trickle.

• **Trees Will Be High**—In normal years, about 3,000,000 trees are imported from Canada, but none has been cut there since Oct. 31, and it is doubtful if more than a small supply will be brought in this year.

Always a low-profit spare-time crop, Christmas trees probably will be abandoned by farmers with few regrets. If wood is cut, it will be only for fuel. Wherever trees are to be had, prices will sky-rocket because no ceiling has been placed on them, and dealers predict this year's demand will be considerably greater than last year's.

• **Artificials Scarce**—Large artificial trees probably will occupy no more than their normally small portion of the market. Most of those made of Visca, an artificial straw, have been imported from European countries in the past. The labor shortage and priority difficulties, which beset nonessential plant expansions, prevent any significant increase in domestic production.

A ceiling price has been set on artificial trees. They come under OPA Regulation 210, which applies to Christmas ornaments, ornamental wreaths, and Christmas decorations in general. This will permit dealers to charge prices not in excess of current costs plus the markup of the 1941 Yuletide.

The Train of Tomorrow, pictured above, is not merely a dream. Out of America's tremendous war effort will come amazing new products—new advantages—new economies. Bohn as the only large-scale organization in the world specializing in advanced engineering of aluminum, magnesium, and brass applications, can therefore give unbiased advice on the use and fabrication of each of these vital metals. Remember the name Bohn. Right now of course, this entire organization is working on war production. Later on, when the right time comes, you may be able to use the vast Bohn resources most advantageously and profitably

BOHN ALUMINUM AND BRASS CORPORATION

GENERAL OFFICES—LAFAYETTE BUILDING • DETROIT, MICHIGAN

Designers and Fabricators—ALUMINUM • MAGNESIUM • BRASS • AIRCRAFT-TYPE BEARINGS

A Gain—and a Responsibility

Allied successes in Africa guarantee new sources of many strategic materials, take same commodities from Axis, but obligate United Nations to help native populations and industries.

Hard on the heels of African successes, word of the substantial damaging of Japanese naval power in the South Pacific was as welcome and surprising as an extra dividend payment. Attention has been focused on American and British forces pushing across the Mediterranean coast from east and west, cutting Axis-held water frontage to less than 800 miles.

United Nations' seizure of 1,500 miles of new shoreline has opened half a dozen important ports to American and British merchant and naval shipping. The rout of a strong Japanese convoy descending upon the Solomons has tightened our hold on Guadalcanal and further insures supply routes to Australia and New Guinea.

Economic Gains are Many

Behind the confusing political developments arising from occupation of most of French North Africa, a few economic facts of immediate importance to American business have become clear.

First, many important raw materials, which French collaboration had contributed to the Axis war effort, can now be reserved for local use and to fill urgent needs of the United Nations. Second, the occupying governments must now assume responsibility for re-establishing normal conditions.

French North Africa, in addition to supplying important quantities of raw materials, had been a transhipment point for Far Eastern rubber, tin, and tungsten slipped through the British blockade. The Axis has admitted that seizure of the French colonies will cost it 50,000 head of sheep from Algeria, 81,000 tons of olive oil, 2,000,000 tons of phosphate fertilizer, 2,400 tons of rubber (from West Africa), thousands of tons of wheat, 850,000 tons of foodstuffs, and 271,000 tons of minerals.

France Hard Hit

These are only the direct losses to the Axis to which can be added the new burden of supplying France with raw materials and foods customarily imported from Africa.

From the French colonies the United Nations can obtain many critical raw materials. The total production of cork, once running to more than 60,000 tons annually but now reduced to less than 40,000 tons, will be available. Morocco is reported to have as much as 40,000 tons in storage—enough to fill 25% of the United States' annual peacetime requirements.

Cobalt, lead, high grade iron ore, manganese, molybdenum, and antimony should be among the first return voyage cargoes to aid American war production. In addition we will get olive oil, phosphates, medicinal herbs, tinned fish, and paint oils if we want.

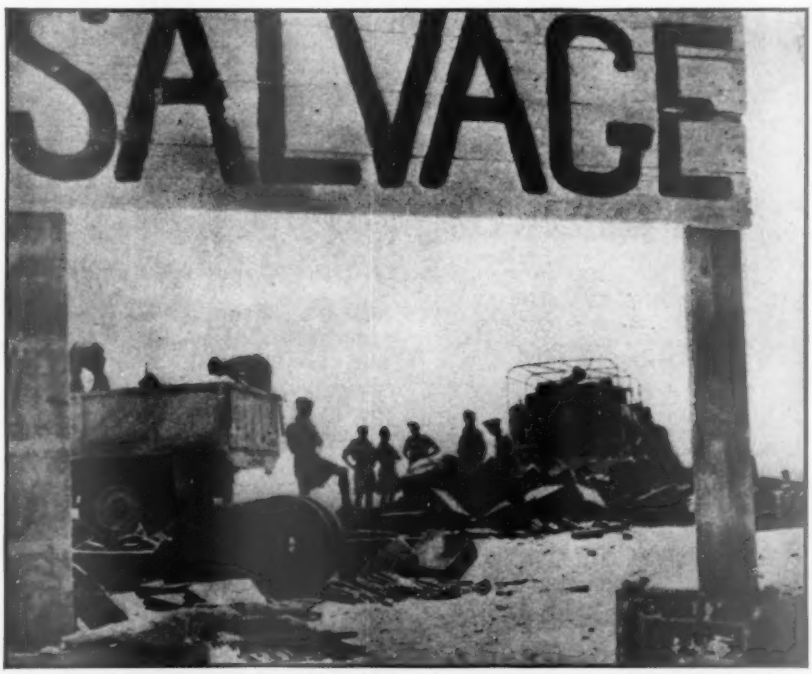
Since the outbreak of the European war the French colonial economies have been hit by shortages of manpower, shipping, fuel, and imported goods contributing to local production. In an effort to alleviate the strains imposed by the war, the French government encouraged and aided the development of local enterprises. In one month of 1941, for instance, 26 new firms with a capitalization of $170,000 were registered in Tunisia.

The colonial governments recently completed a census of agricultural and industrial enterprises, labor, and raw material stocks, established strict rationing and price control, and restricted or expanded enterprises in accordance with war exigencies. This machinery, presumably, will be inherited by the new administrative authorities. The role Vichy France played in supplying the minimum requirements of colonial industry and agriculture must necessarily be assumed now by the United Nations. Recent small-scale trade with the United States under the French North African Accord will inevitably be expanded.

Serious Power Shortage

Both transportation and electric power facilities will require fuel from abroad to maintain current-reduced operations or expand to peacetime levels. In Casablanca, for instance, business operations are restricted by power shortages due to lack of coal for the thermoelectric plant. A number of mining enterprises have curtailed operations or shut down for lack of fuel for railroads servicing them.

Lack of liquid fuel for the fishing fleet has halved fish canning and drying. In 1940, 50 Moroccan plants packed 1,000,000 cases of canned fish; in 1941 production fell to 250,000 cases, but rose in 1942 to an estimated level of 450,000 cases with the introduction of gasogene (producer-gas) equipment in



ECONOMIC AFTERMATH

To the victor—in Egypt and Libya—go the spoils. But with the tremendous quantities of captured tanks, guns, and trucks, which the British Eighth Army continues to send back to its salvage depot, goes the ever-increasing task of reconditioning equipment or converting it into scrap.

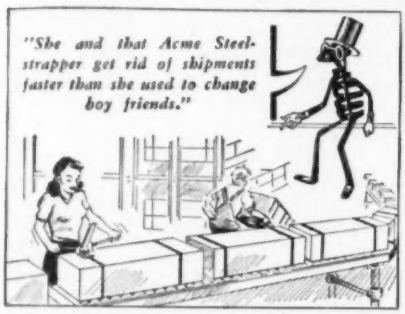
ACME STEELSTRAP PROCESS SAVES TIME, EFFORT FOR WOMEN OPERATORS

AMMUNITION CARRIERS SHIPPED SAFELY, SPEEDILY

Peacetime experience stood this wartime producer of mortar ammunition carriers in good stead. Recalling his damage-free experience with Acme Steelstrapped shipments, he called in an Acme representative for assistance in meeting packaging specifications, speedily. As a result, this important war product is reaching destination in perfect condition and *on time.*

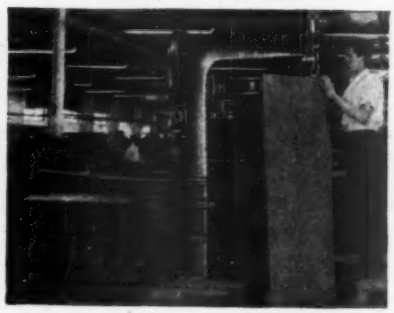
Acme Steelstrap meets all Federal Strapping Specifications. Here, two Acme Steelstraps make these ammunition tubes, "Bound to Get There."

As in many other war plants, women are successfully employed in the packing room . . . where they are establishing new speed and efficiency records with the simple, easy-to-use Acme tools. For instance, the Acme Steelstrapper eliminates unnecessary motion and excess fatigue . . . tensions, seals and cuts the strap with one stroke of two levers. Write, phone or wire for complete details.



Women operators use sturdily built Acme stretchers to tension strap with little effort around ammunition tubes. The Acme Sealer forms the strong, secure joints to assure a safe journey for this important war product.

ACME *SilverStitchers* CONSERVE MAN-HOURS —AID WAR EFFORT



Acme Silverstitchers are assuring faster, easier box stitching in many war product plants. They are conserving man-hours and woman-hours too, as many plants are now using women employees for this important work.

Acme Silverstitchers are easy to use . . . sturdily built for constant and tough use . . . are made in all standard and many special types.

ACME STEELSTRAP KEEPS THEM MOVING ON THE PRODUCTION FRONT

LEND-LEASE— Acme Steelstrappers are used in canning plants for lend-lease shipments. Operators in this plant each average 183 strapped cases an hour! Close sailing dates are met on time.

CONSERVE MAN-POWER BY REDUCING ACCIDENTS

To halt the rising tide of accidents is the duty of every industrial organization and every industrial worker. To this end Acme Steel Company is participating in the nation-wide safety campaign — sponsored by the WAR PRODUCTION FUND TO CONSERVE MAN POWER.

SHIPPING HINTS CONTAINED IN NEW ACME PUBLICATION

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...e fishing boats. Government stocks of ...el, however, which may have passed ...to the hands of American and British ...oops, totaled at last report more than ...8,000 tons, of which more than 8,000 ...ns was of aviation grade. Local pro...uction is less than 500 tons a year.

The labor shortage is reported to ...em from the fact that Arab workers ...efuse to work for wages that cannot ...e spent because of severe shortages of ...onsumer goods. Providing stocks for ...tores in the three colonies, which have ...population of more than 17,000,000, ...ould have unexpected repercussions in ...he United States if it should prove ...ssential to successful control of the ...ccupied area.

Large Pent up Demand

In August and September of this ...ear, more than $4,000,000 worth of ...oolen, cotton, and rayon cloth was im...orted by Morocco from France and ...pain without satisfying rationed ci...ilian demand since the shortage had ...een acute for some time. The colonies ...ave also relied upon imports for tin...ing fish and have at times been forced ...o use barrels. Agricultural enterprises ...re sorely in need of equipment—and ...uel is required for mechanized imple...ments now useless. The lead mines, ...here production fell from a 1939 total ...f 12,620 tons to a 1941 level of 3,440 ...ons, cannot expand production without ...dditional equipment.

Railroads, which, since the opening ...f the Algeria-Tunisia border in June ...f this year, connect southern Morocco ...ith Tripoli, have inadequate rolling ...tock for the operations required by the ...ccupying forces. Other goods, normally ...eceived from France, include wine, ...hemicals, construction materials, paper, ...ardware, and finished metals.

Supplies and Goodwill

Surveying the economic horizon in ...frica, it is clear that, in exchange for ...he strategic materials which will be...ome available for United Nations' war ...ndustries, nonwar goods must be pro...vided to guarantee amicable relations ...ith the local peoples and to strengthen ...he economies which must back up op...erations based in the area.

The fact that the first convoys bearing ...merican troops were accompanied by ...olliers and ships loaded with railroad ...quipment is sufficient proof that the ...uick success of operations rests firmly ...n familiarity with local problems. ...head lie administrative tangles, compli...ated by rivalry in the political sphere, ...nd detailed study for solution of prob...ems affecting the native population. ...t is in this connection that the Board ...f Economic Warfare will get its first ...orkout, preliminary to the more in...olved and unpredictable activities it will ...houlder when the Axis's continental ...arricade has been breached.

War Bird's Powerhouse! Ford-built Pratt & Whitney engines are made to watch-like precision in a modern mass-production plant. This plant was constructed by Ford and the first motor turned out *all within 11 months!* The Ford-developed method of casting cylinders centrifugally is employed in making these engines. For every motor built this way, *four hours' time is saved* and a *third less critical material used!*

Rugged Jeeps—Reconnaissance cars roll from Ford production lines proving their serviceability as "e United Nations' troops everywher

These Soldiers On The Home Front are part of Ford's army *behind* the Army! Working three shifts a day to keep the production lines moving at top speed in all Ford plants, these men are over 100,000 strong!

Deft-Fingered Hands of a woman worker are helping finish the pilot's compartment of a powerful B-24 Bomber built at the Willow Run Bomber Plant. Here over 6,000 women are now employed!

Broken-In On Test Blocks, Ford-bu craft engines deliver top perfor Ford methods cut time of changi gines on test from 4 hours to 30 m

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Vital Role private cars and trucks play in national transportation, ers help "keep 'em rolling" with Ford Protective Service. That heck-ups, repairs by trained mechanics and replacements with arts. In order to keep it running *better and longer,* take your car arest Ford dealer at regular intervals.

Stout Wings For A Mighty Tough Bird! These Ford men at the vast Willow Run Bomber Plant are busy at work on the wing of a B-24 Bomber. Ford-built to do its job *well,* this husky, long-range, four-engined plane has more than 400,000 volume-produced parts — and is characterized by outstanding speed and performance at high altitudes.

FORD WORKING FOR VICTORY

D YOU KNOW?

Army posts throughout the coun- d Traveling Schools taught khaki- mechanics modern methods of g military vehicles.

est Ford precision manufacture, rom a Ford-built and a Pratt & ey-built aircraft engine were led — the engines re-assembled arts of each in the other. Both rfectly.

help supply the need for skilled t production workers, more than men and women are now being in the Ford Airplane School at w Run.

er-accurate Johansson Gage made by Ford are the standard of on measurement for American in- . Accurate to millionths of an ese gages have made possible mass ction of interchangeable parts.

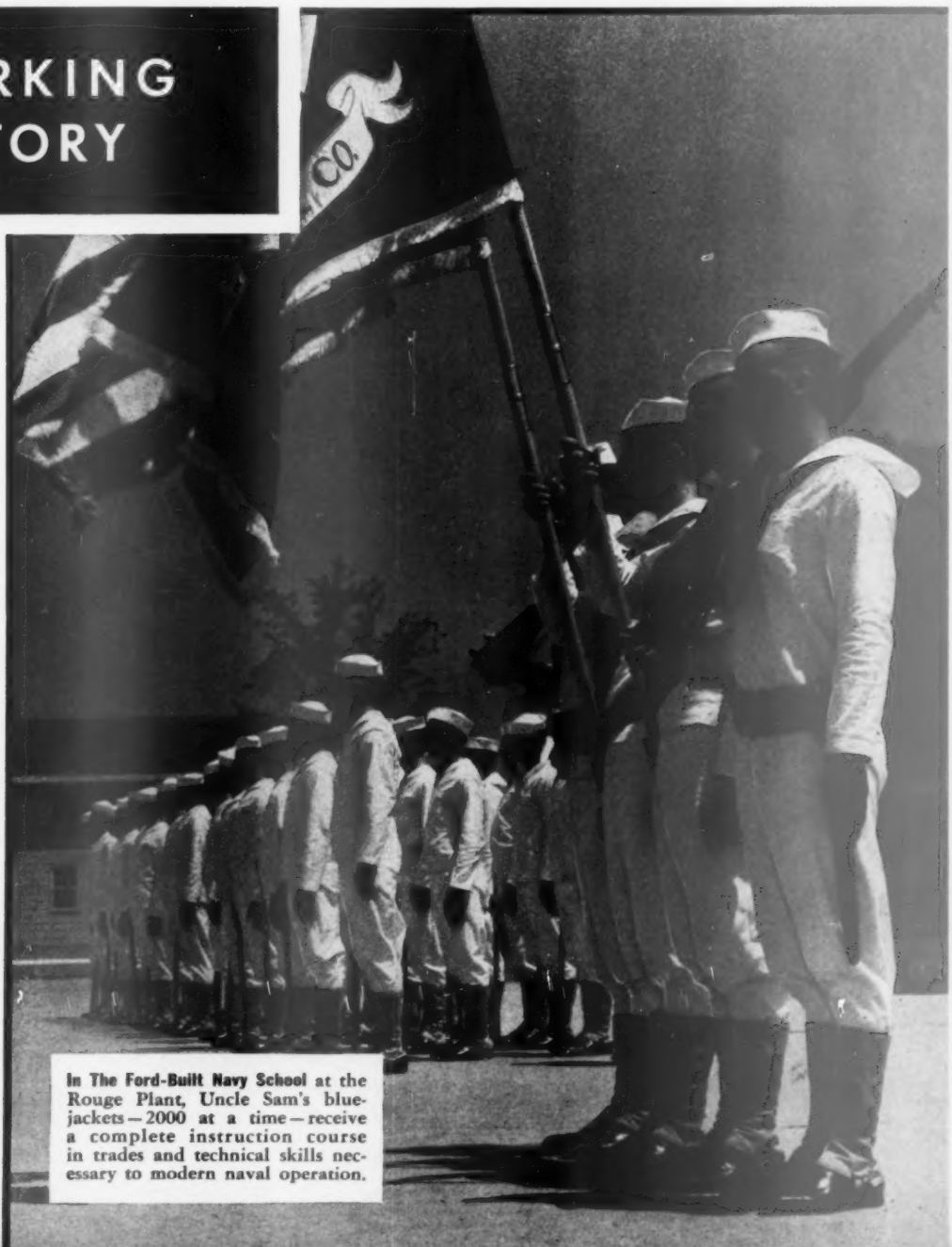
than sixteen months after con- on gangs began clearing farms oodlands for the Ford Willow lant, this largest bomber factory world was turning out long-range ombers — one of the biggest and owerful planes now being built.

roducing mass production, shorter and higher wages, I have tried to e American workman security for lf and his family and the chance of re for his children."

—HENRY FORD

Ford

GED TO VICTORY



In The Ford-Built Navy School at the Rouge Plant, Uncle Sam's blue-jackets — 2000 at a time — receive a complete instruction course in trades and technical skills necessary to modern naval operation.

Tin Quotas Upped

International Committee adds two American members and posts new figures, indicating greater postwar control.

Planners of international raw material control in the postwar world will follow with interest future activities of the International Tin Committee. In addition to making important wartime adjustments of export quotas to bring them more closely in line with productive capacity, the committee has added three representatives of consuming countries to its working membership.

• **Britain Approves**—Two of the new representatives will be from the United States—largest tin consumer—and one will represent all other tin importing countries. One of the American representatives will be selected by the government.

British approval of the Committee's report and participation of an official United States representative in future planning may indicate official sanction of the scheme as a postwar economic control mechanism. The Atlantic Charter promises all countries "access, on equal terms, to the trade and raw materials of the world."

• **Quotas Revised**—The committee describes its activities as directed toward "keeping world stocks at a nominal figure, adjusting in an orderly manner to demand, while at the same time making available all the tin that may be required. . . ."

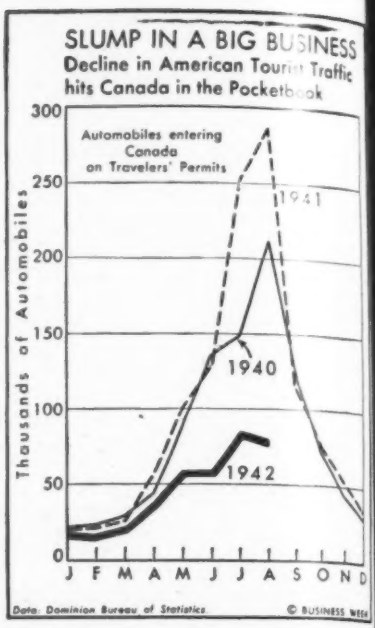
The new quotas in long tons—with previous standards in parentheses—are: Belgian Congo, 20,178 (15,035); Bolivia, 46,768 (46,027); Malaya, 95,474 (77,335); Dutch East Indies, 55,113 (39,055); and Nigeria, 15,367 (10,890). Provision is made for reconsideration of Malayan and East Indian quotas after their recapture from Japan. Other tin producing countries not covered by quota agreements will be invited to join the control scheme.

• **Outlook Good**—Tin appeared quickly on the United States' critical metals list, and long before the Pacific war cut off Far Eastern sources, stockpiling had been started by Metals Reserve Co. The British magazine, Tin, estimates United Nations' stocks to be large enough to carry through 1945 with continuation of supplies from unblocked countries running at an annual rate of 90,000 tons. To this potential can be added the increases being obtained in tin production in Nigeria, Belgian Congo, and Bolivia.

Current annual consumption of allied nations, estimated by the British journal, is: Soviet Union, 15,000 tons; Great Britain, 25,000 tons; rest of British Empire, 10,000 tons; and the United States, 90,000 tons.

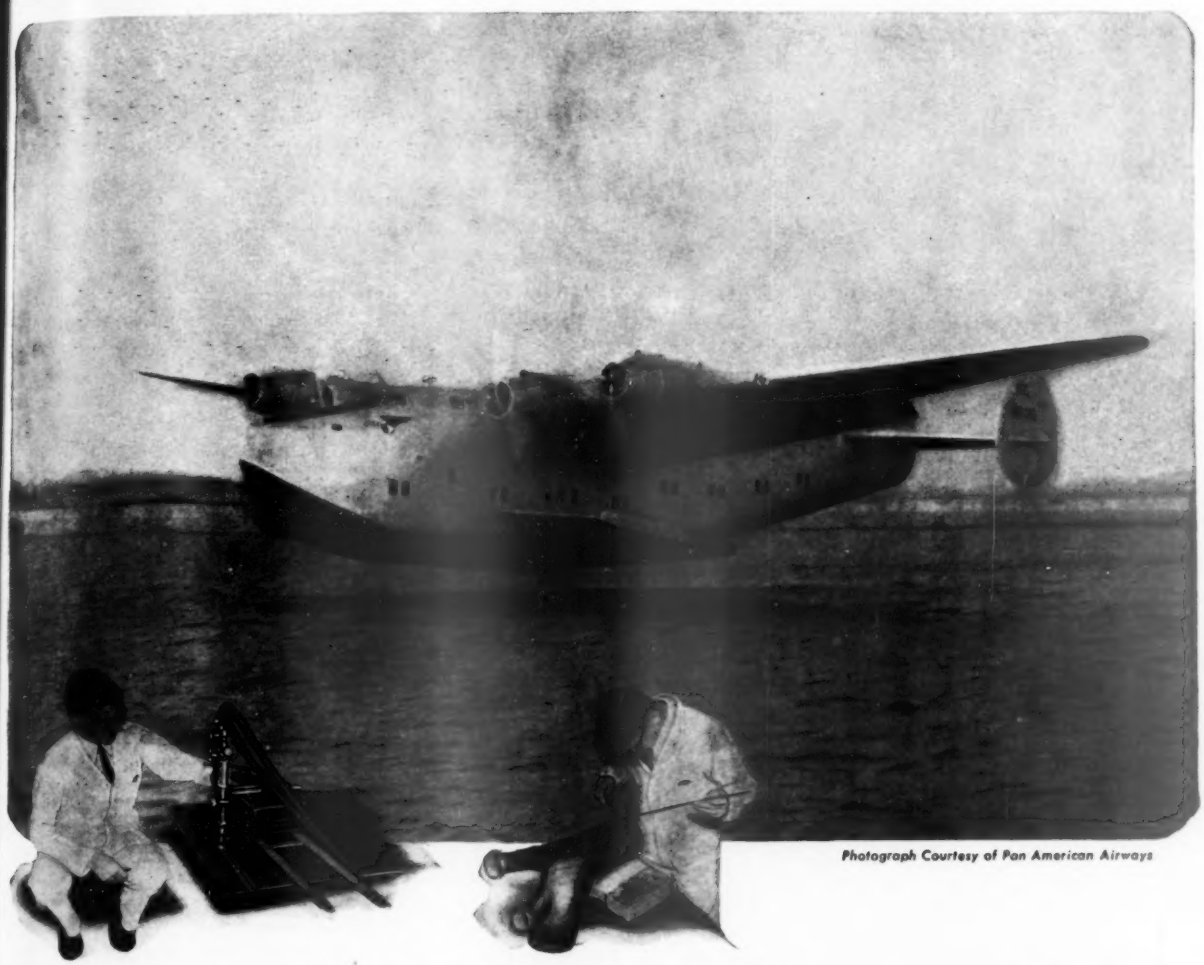
SCRAP DRIVE STIMULANT

Directors of local salvage collection drives have overlooked a bet that the Nazis are using in Occupied France. Strictly on a gift-exchange basis, the government donates a liter of wine for each 200 grams of copper turned in.



American tourist expenditures have long been an important source of Canadian foreign exchange—amounting to $110,000,000 in 1940, an off year. An early war casualty as a result of stricter border regulations, tourism went down for the count with gas rationing and the rubber shortage.

Landing IN LIBERIA ON SCHEDULE...



Photograph Courtesy of Pan American Airways

helped by Modern Maintenance Tools

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LABOR

C.I.O. Blasts WPB

Convention takes heat off business—temporarily. Future strategy aimed at industry-wide pacts and local arbitration.

Three developments bearing directly on labor-management relations came out of the Congress of Industrial Organizations' convention in Boston last week. Those developments, coupled with other C.I.O. action not immediately affecting labor relations but still of prime concern to business, made this fifth annual meeting of the basic industry unions a notable one.

• **Shifting the Heat**—Distinguishing this convention from all the others was a marked lack of "business-baiting." The C.I.O. has not become subdued, but it has shifted its line of attack from business to government. Officially ended was a truce with the War Production Board. Active hostility toward the government's top production agency was throttled last year when Donald Nelson replaced William Knudsen. C.I.O. leaders maintained they were vindicated in their bitter criticism of Knudsen for allegedly mobilizing industry for defense without inviting labor participation.

Now the industrial unions say Nelson has proved to be no more "labor-minded" than his predecessor, and they are out either to convert him quickly or to get his scalp.

• **Window-Dressing**—C.I.O. has boiled over because there has been no action on what was interpreted as a Nelson promise to appoint two labor vice chairmen for WPB (BW—Sep.12'42,p110); because industry branches of the board have treated union representatives too casually; and because, according to one C.I.O. spokesman, "every time a WPB official shakes hands with a labor man, he has his picture taken and tries to convince the country that such window-dressing is real labor-government collaboration."

Replaced in C.I.O. demonology were the names of prominent employers like Grace, Girdler, and Ford. They got no mention. In their stead, union orators vented spleen on Nelson, Eberstadt, Weinberg, and others.

• **Pressure by Government**—For labor-management relations, this has direct implications. Pressure for union objectives will be exerted on the individual employer through government agencies if the C.I.O. is successful in "organizing" the WPB. Emphasis will then shift from traditional collective bar-

gaining method of the labor unions.

The second noteworthy development for employers was a directive to constituent C.I.O. units to seek industry-wide or regional collective bargaining agreements. According to C.I.O. officers, unionization in many industries has progressed to the point where it should be possible to write master contracts. Steel, electrical manufacturing, automobiles, and rubber were mentioned specifically.

• **U.E.R.M.W. Ready**—Dealing with the indigenous industry problems will be left to the individual union involved. At least one big C.I.O. unit, the United Electrical, Radio, and Machine Workers, already has had preliminary meetings with representative employers looking toward industry-wide bargaining. U.E.R.M.W. has such firms as General Electric, Westinghouse, Philco, and R.C.A. under contract and has been careful to write each agreement so that it may be voided on 30 days notice. If an industry-wide agreement can be obtained, all outstanding contracts can be terminated at the same time.

U.E.R.M.W., as well as other C.I.O. units, thinks in prewar terms on the question, "What are the limits of an industry?" Thus, from the union point of view on jurisdiction, regardless of what Philco, for example, is now manufacturing, it belongs in the radio industry for purposes of industry-wide bargaining.

• **Standardization Attempt**—This industry-wide bargaining doesn't mean that C.I.O. will try to make wages, for example, uniform in all metal-working industries—the broad field in which much more than half of C.I.O.'s 5,000,000-odd members are now employed. Each union is much too jealous of its jurisdictional prerogatives to support such a move. It does, however, represent an attempt to standardize within an industry and eliminate individual company bargaining as much as possible.

To help put industry-wide collective bargaining over, the C.I.O. will ask the support of the National War Labor Board. NWLB's chairman, William H. Davis, already is on record as favoring industry-wide bargaining (BW—Sep.26'42,p104), and some of the employer members of the board have urged it as a way industry could present a united front.

• **Local Arbitration**—The third C.I.O. convention action that directly concerns employers also involves the terms of written agreements. Protesting that NWLB was being paralyzed by a docket overwhelmed with "thousands of grievance cases which can easily be settled in the plants where they originate," the convention made it C.I.O. policy to write into every contract a provision for the local arbitration of grievances that are not directly settled by union-man-

Harry Bridges (left) congratulates Philip Murray on his election to a third term as president of the Congress of Industrial Organizations. The Boston convention, at which Murray was re-elected last week, was about the most harmonious the C.I.O. has ever held. Even the left-wing unions, of which Bridges is a boss, found nothing with which to quarrel in Murray's leadership. Frank Andrews (center) is a delegate from Seattle.

agement discussion. C.I.O. President Philip Murray, re-elected to a third term, called for every union to get such a clause into all contracts, old and new.

Although neither he nor his satellites were present, John L. Lewis again proved to be the most important single person and issue to the C.I.O. In his opening speech to the convention, Murray called his erstwhile chief a "fat rabbit," and this set the tone for subsequent abuse.

• **Foil for District 50**—Most important Lewis-baiting action was the chartering of a new national C.I.O. unit, the United Gas, Coke, and Chemical Workers, directed by Lewis opponents who have seceded from the mine workers' union. The new organization is really a counter-irritant to Lewis's "catch-all" District 50. Its program will be largely confined to raiding nonminer members that the Lewis union corrals. The convention also openly wooed the mine union's rank-and-file. It is certain the C.I.O. will establish a competing coal union just as soon as it looks as though it can get any real membership.

The Lewis lien on the C.I.O. for over a million dollars, advanced by the mine workers' treasury to get industrial organization started, can now definitely be regarded as repudiated. The convention decided it didn't even owe Lewis a "thank you."

• **Cool to Peace**—On the question of unity with the American Federation of Labor, the convention took its lead from Murray, exhibited no avid desire for labor peace. Sidney Hillman of the clothing workers union, making his first appearance at an important labor meeting since his retirement from the codirectorship of the Office of Production Management, urged that effecting unity was perhaps the most important single progressive step which the C.I.O. could make. But Murray and the delegates remained lukewarm.

JOBS—UNTIL PEACE COMES

During the last war, the Detroit United Railways became so short of conductors on its trolley cars that women were hired. Most of the women quit when the war ended and there was a manpower supply again, but two conductorettes of the 1917–18 days are still working on the East Jefferson Avenue run.

History now has repeated itself in Detroit. The Department of Street Railways, municipally-owned successor to the D.U.R., scanned its lists, found that a shortage of 500 men was "well beyond the safety point." Decision was made that women will be hired as conductors to free male employees for jobs as motormen and bus operators. But there will be no females left on this line after this war—the jobs are limited to the duration.

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Milk Route Peace?

NWLB arbiter has plan to get ODT's 25% cut in mileage started in New York; system provides for checkup.

Until last week, the Office of Defense Transportation's order to restrict home deliveries of milk and other products in New York City to bring about a 25% reduction in the mileage of rubber-tired vehicles was a dead letter. It was supposed to be put into effect last June 1, but sharp disagreements between the American Federation of Labor's teamsters' union, which represents truck drivers, and the dairy companies over how to apply the order prevented any action at all.

• **Labor Board Invited In**—Two months ago, ODT, having watched with growing impatience the controversy get hotter, decided to do something about it. Fearful that injecting itself into the situation as a participant might only serve to transform a two-party argument into a three-cornered fight, it asked the National War Labor Board to consider the problem a labor dispute and handle it as such.

NWLB was willing to take jurisdiction, but a preliminary appraisal revealed that its standard procedure for dealing with labor disputes was ill-suited to ODT's New York problem. Accordingly, it devised somewhat unusual methods for handling the milk delivery case. It established an independent commission, armed with full and final authority, to take whatever steps might be necessary, including the setting aside of valid collective bargaining contract provisions, to carry out the ODT order. To membership on the commission, the board named a teamsters' union representative, a dairy company representative, and, as impartial chairman, Ralph T. Seward, long-time labor mediator and administrative associate member of NWLB.

• **Many Objections**—Finding a basis for agreement was impossible. The union saw the cut destroying jobs, which may never be restored. Employers feared the cut would siphon off business, which may never be recaptured, and they regarded union proposals for maintaining employment while cutting deliveries as a very costly "feather-bed" plan.

Into this murky atmosphere, Seward last week delivered his order reiterating the terms of the ODT regulation, but, for a one-month period of observation, specifying hours before which delivery trucks may not depart from loading points; directing substitution of steel-tired horse-drawn vehicles for rubber-tired trucks "wherever possible"; and leaving it to the dairy companies to

If New York dairy companies don't cut truck mileage, Ralph T. Seward will order a reduction in operations. He's the impartial chairman for the industry who has to carry the ball for the ODT—in getting trucks, tires, and gas conserved—and for NWLB.

rearrange their delivery routes so that all unnecessary mileage is eliminated.

• **Double Check**—During the observation period (Nov. 16 to Dec. 16), the companies will file weekly reports of their mileages with Seward's commission, and union shop stewards at each platform will collect mileage reports from the drivers and submit them to the commission. If, by the end of a month, the commission is not satisfied with the over-all result of voluntary compliance, it will put milk delivery in the metropolitan area on a "less than seven-day basis."

The Seward commission ducked the central question: whether the dairy companies could lay off unneeded drivers without inviting retaliation from the union. Seward said, however, that the commission had chosen the course least likely to cause layoffs, without prohibiting them. Should any dispute over layoffs arise, it would be dumped directly in Seward's lap, for he is also impartial arbiter under the existing labor contract.

Doing something about violators when they are discovered will depend on NWLB's getting cooperation from the Office of Price Administration and its local rationing boards. These boards can withhold gas and tires, for example. In particularly tough cases, ODT can probably get certification of war necessity withdrawn from specific milk trucks. These things, plus pressure of public opinion, are being counted on to pump some life into ODT's six-month old "emergency order."

Labor Czar Next?

Truman committee urges one-man control of manpower in releasing 17-point formula. Employers like plan.

The manpower crisis was even more in evidence this week as unresolved problems grew more pressing and confidential reports reached Washington that war production in certain plants was short of quota because assembly lines are undermanned. Nor was there any certainty that forthright action was imminent.

• **No Action**—Congress heard reports and divers recommendations from standing and special committees, but no legislative program was before either house. Maintaining he had been too busy to keep informed on recent proposals for handling the manpower mess, President Roosevelt spiked a widespread Washington rumor by telling his press conference that Bernard Baruch had not been commissioned to study the situation.

This was taken to mean the Chief Executive had no plan for immediate steps to deal with manpower problems. Other agencies in the executive branch concerned with manpower—and, according to Senator Pepper, there are 28 of them—did nothing more than continue getting in each other's way, as more than one investigating body has noted they have been doing for six months.

• **Czar Needed**—Meanwhile, harassed employers, working in depleted labor markets, were urging congressmen, and regional and national War Manpower Commission officials to "do something."

Addressed to that confusion, the latest of an impressive series of comprehensive proposals for managing manpower problems was available for study this week, incorporated in a special report of the Senate's Truman committee. Summarizing labor difficulties fostered by capacity war production, it noted the magnitude and complexity of the issue, pointed out that the situation had become more threatening to the war effort because of the many unrelated attempts to deal with the problem, and called for a uniform government policy under one head.

• **Force Unwanted**—The Truman committee took a firm stand against compulsion, calling it a last resort not yet proved necessary. Instead, it demanded a "definite, clear-cut manpower policy which makes sense." It held that once such a policy is formulated "and the cooperation of management, labor, and agriculture asked in its execution, such voluntary cooperation will be forthcoming in full measure from the overwhelming majority of the American people."

• **The Formula**—Putting the need for a central authority over manpower first on its list of recommendations, the committee proposes that a national policy be established on the following points:

(1) Voluntary enlistments for the armed services, without the approval of occupational-deferment-minded Selective Service agents, be stopped immediately.

(2) Selective Service and the United States Employment Service be coordinated to "carry out an effective over-all manpower policy" and bulwark their functions locally by creating manpower committees composed of management, labor, and agriculture representatives.

(3) Use Selective Service to hold labor in important employment fields where critical shortages have developed.

(4) Step up all forms of vocational training under a central manpower authority.

(5) Expand nursery schools and child care agencies to permit mothers to take jobs in industry, and change dependency status under Selective Service rules if it is found to be deterring many wives from working.

(6) Start an aggressive campaign to make hiring policies of all employers conform to a national policy. If compliance is not secured, legislate authority to the manpower agency to control hiring by a non-cooperative employer; eliminate all hiring prejudices whether due to sex, age, or race.

(7) Campaign to induce employers in nonessential industries to reduce total employment and replace men with women.

(8) Suspend state and federal regulations interfering with employment of handicapped persons or discouraging relievers from working.

(9) Consider concentrating and reducing nonessential production to release labor for more important work.

(10) Discourage absenteeism by a vigorous campaign, which may include penalties.

(11) Suspend or revise work rules, trade practices, contract provisions, statutory provisions, or usages that curb production.

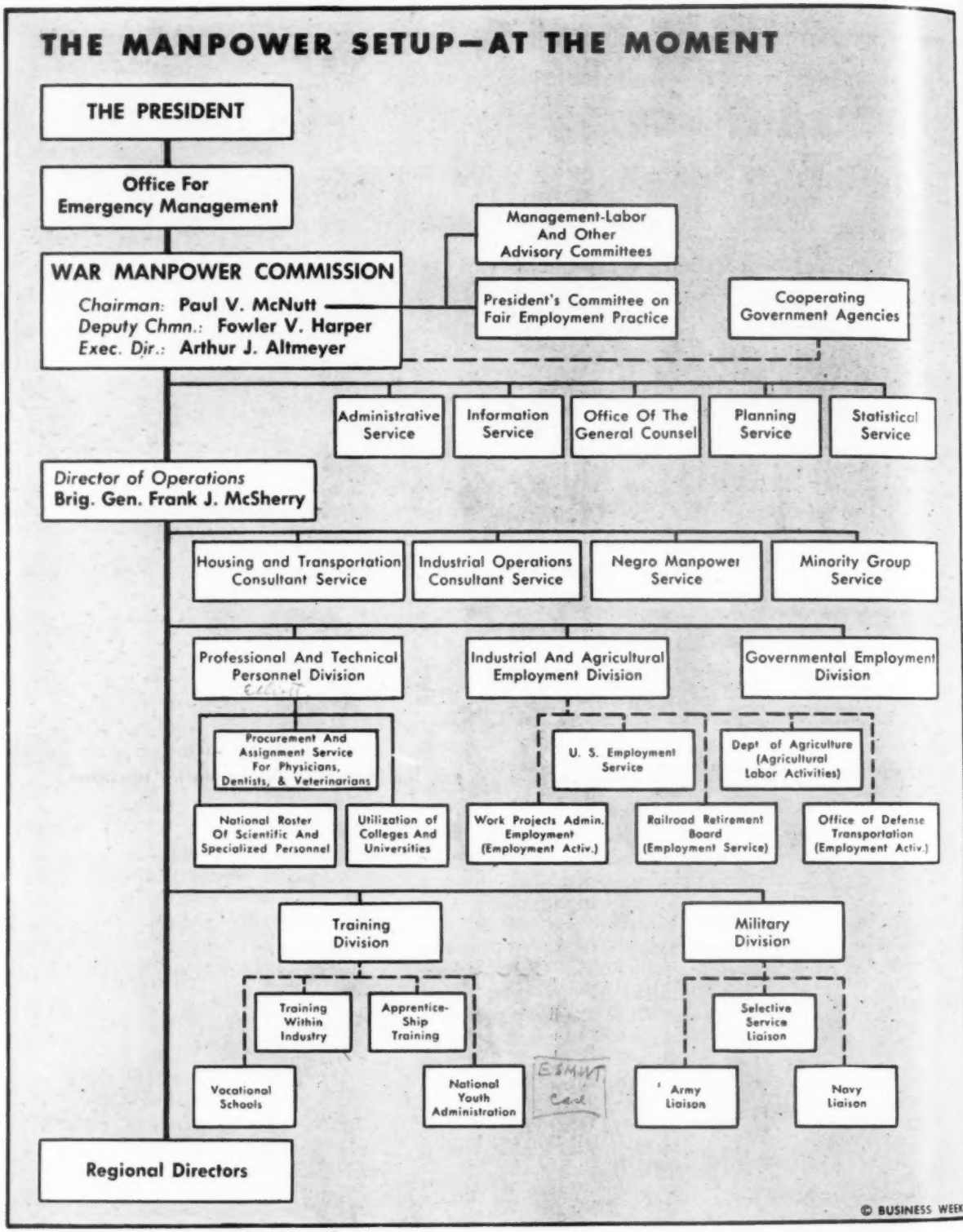
(12) Lengthen the work week to "at least 48 hours," paying additional overtime in war bonds cashable only at the end of the war (or during the war only for paying federal taxes).

(13) Stop labor hoarding by having government agencies refuse to reimburse employers for wage costs paid labor that has not been used efficiently.

(14) Concentrate essential civilian production in localities that are unsuited to war production but that have pools of unemployed. (New York City was offered as an example.)

(15) Wherever possible, expand war production by utilizing existing plants in preference to using labor for building new ones.

(16) Drastically slash relief employ-



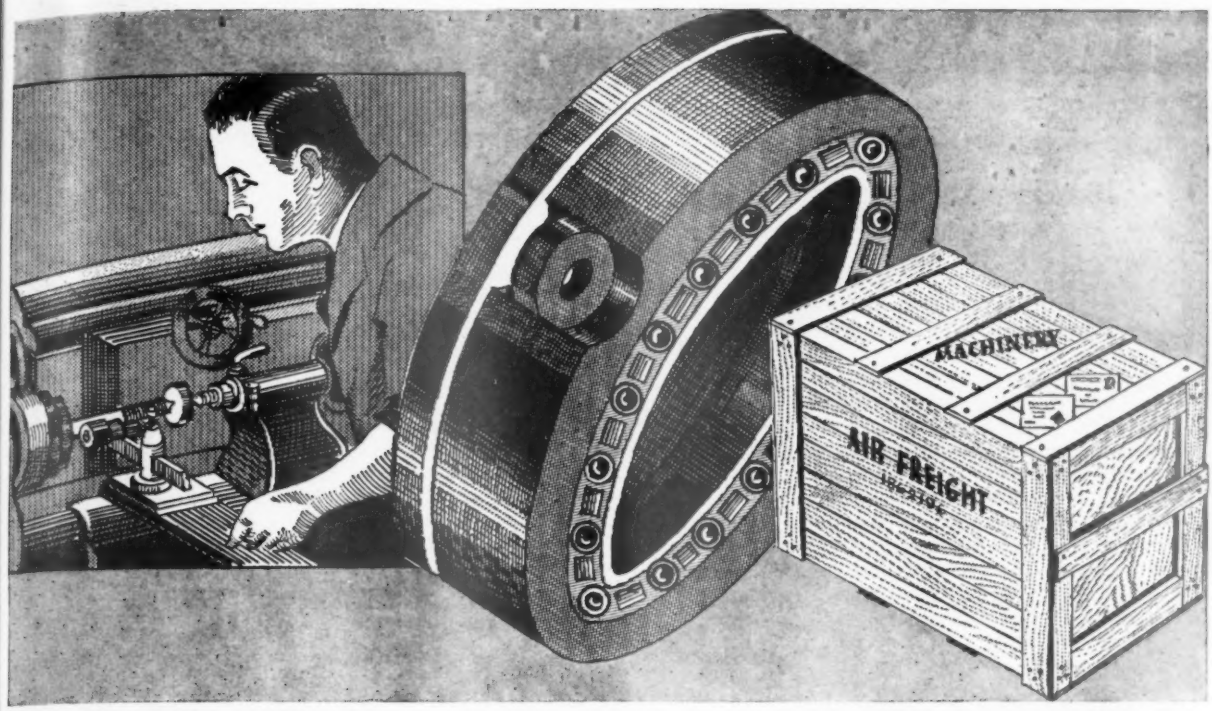
ment on Works Projects Administration and similar programs.

(17) Utilize the full skill and ability of each worker. Reserve easy jobs for older men and women.

• **An Oversight**—Complete as the Truman committee recommendations are, observers immediately noted the omission of one proposal, which had become almost standard in every prescription for curing labor market ills. They pointedly neglected to recommend that all war hiring be done through the United States Employment Service.

This was taken as confirmation that the USES is operating under handicaps, which sharply limit its usefulness. Washington maintains that this key agency, which, a year ago, was counted on to play a major rôle in keeping manpower problems in hand, has failed to deliver because it was imperfectly federalized.

• **Federal vs. States**—Last December, President Roosevelt sent wires to the 48 governors asking that they turn all state employment service personnel and records over to the federal government (BW—Dec.27'41,p16). They did, but top USES officials insist it was only a gesture. Local offices have continued



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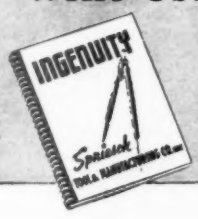

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10 Howard Street **Buffalo, New York**

in large part, to be footballs of state politics; field administration has actually deteriorated; there has been a 90% turnover in personnel, primarily because Congress has refused to provide funds for higher salaries; former state administrators now on the federal payroll have, in a number of cases, refused to acknowledge Washington authority.

The question of state's rights has interfered with the efficient operation of USES, and congressional support for a thorough reorganization has been lacking, because state political machines, to which congressmen often defer, have opposed any move that would extend federal control. Some business spokesmen also have opposed strengthening USES on the ground that it would lead to federalization of the unemployment compensation system, which has always been administered through state employment service offices. Nevertheless, it seemed clear that any thorough manpower patrolling policy would require an agency like USES, if not USES itself, to keep the labor market operating in response to wartime needs.

• **Work Week Snag**—For the most part, employers found much in favor of the committee recommendations. Hailed as "much more realistic" than the proposals of Paul McNutt's labor-management advisory committee to the War Manpower Commission, which had nothing to say about extending the work week, the Truman committee offered a number of suggestions that individual employers could follow without awaiting Washington action.

The exact committee recommendation for compensation of a longer work week, it must be noted, however, is as yet impossible to implement. Before workers may be paid in bonds cashable only after the war, such a bond has to be issued by the U. S. Treasury. Present bonds, Series E, F, and G, are redeemable after 60 days from purchase. But new series of the type recommended can be issued by Secretary Morgenthau with a minimum of red tape.

FOREMEN BOUNCED—BACK

Principles lay at the root of the latest Michigan war plant strike. Union members at a Nash-Kelvinator factory in Lansing objected to a foreman and his assistant to the point that they threw them out of the plant. The company took the stand that it, not the union, would have to decide on problems of supervision and ordered the factory closed.

Three days later, last Saturday, a settlement was reached, with the National War Labor Board and the Army Air Forces holding a hypothetical pistol at both parties. The supervisors returned to their jobs in charge of mechanical operations in the department but divorced from personnel relations.

NLRB Change Due

Leiserson leaving, Millis to follow unless successor is acceptable. Board now plays second fiddle to NWLB.

Personnel changes impend over the National Labor Relations Board. Board Member William Leiserson is definitely headed back to the Railway Mediation Board, and the aging chairman, Harry Millis, has let it be known that if Leiserson's successor is not fully acceptable to him, he will retire.

• **Perkins's Choices**—NLRB is suffering from relegation to a place of secondary importance in labor affairs. The war has made the National War Labor Board the top government labor agency, and many of NLRB's ablest staff members are drifting away.

Secretary of Labor Frances Perkins has always considered NLRB one of her favorite agencies and is understood to have approached several able men about the Leiserson place. She has tried to secure Lloyd Garrison, who chose instead to become general counsel to NWLB; George Taylor, who preferred to remain as NWLB vice chairman; and Paul Herzog, who elected to stay with the New York State Labor Relations Board as its chairman.

• **Top Listing**—Now one of the top names on the Secretary's list is Edwin Witte of the University of Wisconsin, who is known to Washington as the drafter of the Social Security Act. Millis would find Witte quite acceptable.

Although basic causes of the board's disintegration are either internal or the war, there are other factors that make it a less attractive agency for career men. At present it is coolly regarded by American Federation of Labor and Congress of Industrial Organizations.

• **C.I.O. Love Cools**—The A.F.L. has felt since 1937 that the board favored industry-wide bargaining units—a form that often shuts out A.F.L. craft affiliates. The C.I.O., until fairly recently NLRB's most ardent champion, lost some of its enthusiasm when Millis took over the chairmanship late in 1940 and set the agency on a more moderate course. During the last ten months, it has assailed the board bitterly for sanctioning what it calls "sweetheart agreements" between Henry J. Kaiser and A.F.L. shipbuilding unions.

When Leiserson goes back to the Railway Mediation Board, he will replace Otto Beyer who has become persona non grata to railway labor organizations. Beyer's term, at $10,000 a year, still has some time to run so he will be taken care of—most likely by the Office of Defense Transportation or the War Manpower Commission.

Turning the "Searchlight" on "Opportunities"

clues:

position vacant

• *ADHESIVES TECHNICIAN.* Experienced in synthetic resin glues and adhesives. Must be thoroughly grounded development work and familiar commercial production. This is an excellent opportunity to take over a responsible assignment in the further development and promotion of a line of synthetic adhesives for one of the Country's leading chemical companies. Write outlining your educational background and experience. Box 325.

position wanted

• *ASSISTANT TO EXECUTIVE.* Engineering Graduate, 35, qualified to relieve General or Works Manager of important details. Engineering control, statistical and administrative experience. Box 309.

selling opportunities wanted

• *WANTED.* By firm established in 1874 located in St. Louis area. Merchandise lines not affected by war priorities, to act as Distribution Agent. Have warehouse space and organization to handle million dollar volume. Box 310.

wanted—pattern work

• *OLDEST ESTABLISHED* pattern and machine works on Long Island can take on additional wood and metal pattern work. Eppenbach, Inc., 4510 Vernon Blvd., Long Island City, N. Y.

"clues" information

"clues" appears weekly. Copy required Monday for Saturday's issue. Rate: 50 per word or $2.50 per line (or fraction) per insertion, payable in advance. Minimum charge $5.00. Discount 10% on orders for insertion in 4 consecutive issues. Publication box number address counts as 2 words; replies forwarded without charge. Address replies c/o Business Week, 330 W. 42 St., New York, N. Y. Copy November 30 for December 5 "clues".

Pay Hike Formula

NWLB all set to adjust salaries and wages on "damned tough" policy. Intricate mill for all applications.

Ponderous machinery created by the National War Labor Board to handle employer applications for permission to make wage adjustments is ready to roll, and, already, a hasty survey shows more than 5,000 firms are lining up to use it. Under regulations of the Office of Economic Stabilization, no employer can raise or lower pay rates without NWLB approval.

• **Raises Take Time**—Resting on the field offices of the Wage-Hour Division, Department of Labor, the wage stabilizing apparatus pyramids to the board itself in Washington, and more than one employer is apt to find that it will take a long time before the government sanctions pay hikes.

Any change in pay rates, under NWLB rules, must be inaugurated by employer application to Wage-Hour offices; forms are ready. Two types of application for wage adjustment approval are recognized. The first is where the adjustment sought has been agreed to in recognized collective bargaining procedure. Getting action on this type of case may be expedited by having the application signed by both the employer and an employee representative. If presented by the employer alone, time will be lost while Wage-Hour agents attempt to get statements on the case from the union involved.

• **Union O. K. Needed**—The second type covers cases where the employer "on his own initiative" wishes to make a wage adjustment. In such, the employer's application must state whether there is a duly recognized collective bargaining agency among his employees. If such an organization exists, Wage-Hour Division agents have been instructed to send a notice of the application to the organization's officers asking whether they have any objection.

Assuming that no objections are forthcoming and that an employer states he does not intend to make the proposed adjustment the basis for a request of the Office of Price Administration to raise product prices, the petition for sanction may be started on its way.

• **Then NWLB Acts**—The Wage-Hour Division office where it is presented must see that appropriate forms are accurately filled out. It has authority to approve, at this point, applications that show the requested adjustment is clearly within NWLB general orders, which provide for raising wages under certain defined circumstances (BW—Oct.31'42,p82). Where there is doubt about specific provisions of the regulations for the kind of wage adjustment the employer seeks to make, Wage-Hour officials must forward the application and all relevant documents to the nearest NWLB regional office.

NWLB regional offices, headed by regional directors, have been established in the ten field offices of the Office of Emergency Management. These are in Boston, New York, Philadelphia, Atlanta, Cleveland, Chicago, Kansas City, Mo., Dallas, Denver, and San Francisco.

• **Directors Decide**—In these offices, the employer's application is reviewed again and a copy dispatched to OPA. Three courses of action are open to the regional director: (1) He may pass on the application himself, and his decision is final, except for appeal to NWLB headquarters; (2) he may assemble a tripartite panel on which will sit a labor, management, and public representative, and ask them to rule on the application, their decision being final but subject to NWLB's ultimate power of review; (3) he may refer it to NWLB—from whose ruling there is no appeal.

NWLB has made it clear that neither its regional directors nor the panels they establish have policy-making powers. Their obligation is to execute the wage policies promulgated by the board.

• **Thirteen Orders**—The board's wage policies are thus far enunciated in 13 "general orders." Six of these have been operating for a fortnight (BW—Oct.31'42,p82). The later seven delineate further board jurisdiction over wages and salaries up to $5,000 a year.

General order No. 7 provides for blanket approval of all wage increases called for by the Fair Labor Standards Act and by various state minimum wage statutes. No. 8 limits board jurisdiction to the continental United States and Alaska.

• **Internal Revenue's Job**—No. 9 defines what is meant by executive, administrative, and professional personnel, three categories of employees for whom salary adjustment requests come under the jurisdiction of the Bureau of Internal Revenue (page 16), even though they earn less than $5,000 a year. NWLB definitions are essentially the same as those provided by the Wage-Hour Administration for the Fair Labor Standards Act.

No. 10 permits the continuance of a wage or salary increase system resting on an established past custom of paying a bonus, fee, gift, or commission if the total amount paid for the year does not exceed the total paid in the preceding year for like work. This may be interpreted as sanctioning a higher income for a salesman on commission if he sells more; but it does not countenance raising the commission rate.

• **Period of Grace**—No. 11 provides for

WHERE'S CONSTRUCTION HEADED IN 1943?

What's going to happen to engineered construction in 1943? Is the job of construction for our all-out war effort about completed? Is the construction industry ready to hole up for the duration, as some recent headlines would indicate?

There is much confusion regarding the immediate construction outlook . . . confusion that should be cleared up *now,* for the good of the construction industry in its all out effort to help win the war.

SIGNIFICANT FACTS ABOUT 1943 CONSTRUCTION

1... All engineered construction will be essential to the war effort, the health and safety of the public. But next year not all United States construction will be done in the *continental United States,* which is what most statistics measure.

2... Quantities of construction materials, parts, equipment, supplies, and tools needed will approach, if not exceed, 1942's record volume.

3... Dollar volume of construction in continental United States will recede 2½ billions dollars from this year's level, but will still be 8% higher than the highest pre-war defense year (1941) and 60% above the highest peacetime year (1929)

4... Add to continental construction volume the American bases to be built abroad with American money, labor, equipment and materials, and total volume will approach, if not surpass, record-breaking 1942.

5... Demand for construction equipment and materials by 210,000 Navy Seabees and 400,000 Army engineers will be increasingly heavier.

6... An estimated 2 billions of construction work, on which contracts will have been let in 1942 but which will not be completed until 1943, steps up further anticipated volume.

7... Add, too, the adaptation of construction techniques, tools, equipment and materials by construction men to shipbuilding. Witness the shipbuilding records set by Henry J. Kaiser's construction-trained men.

Engineered construction in 1943 will be at peak levels. More men will be doing more essential war construction work than ever before. It will be harder for you to follow these men and their jobs because much project news today is of necessity secret. Engineering News-Record and Construction Methods, with more than 56,000 paid subscribers and over 100,000 additional readers, will get your message to these men who are doing today's vital war work and who will do tomorrow's peacetime work. They need information about your products and quickly. Informative advertising in Engineering News-Record and Construction Methods will get it to them.

A detailed report on the outlook for 1943 engineered construction is available on request. It includes the outlook for engineered buildings, waterworks and sewage construction, highways and bridges, and unclassified construction (airports, naval bases, war housing.) Write to . . .

ENGINEERING NEWS-RECORD
AND
CONSTRUCTION METHODS

McGRAW-HILL BUILDING • 330 WEST 42nd STREET • NEW YORK, N.Y.

approval of retroactive wage increases made "in good faith" by employers without prior approval of NWLB. The board, however, strictly limits the period of grace in which an employer can seek retroactive approval to Nov. 7, 1942; and he must petition for approval before next Dec. 1.

No. 12 is a joint order issued by both NWLB and the Bureau of Internal Revenue, and it covers the adjustment of all wages and salaries paid by state, county, and municipal governments. Under certain circumstances, they may be changed without prior approval by either of the policing agencies.

• **NWLB Gets Tough**—No. 13 provides for NWLB clearance of wage increases granted in certain categories of construction work that are now regulated by the Labor Department's Wage Adjustment Board. Basis of the order is that, unless NWLB objects within seven days to the Labor Department's findings, it is assumed to have approved.

Acting on its first wage case since it handed down wage freeze orders, NWLB backed up the words of its chairman—that it was going to be "damned tough" about approving increases. The case testing the board's temper involved Staley Manufacturing Co. of Painesville, O., and the American Federation of Labor's Chemical Workers Union.

• **Sets Its Policy**—The company originally had rejected the union's request for a 6¢ an hour general increase, and the resultant dispute started on its way to adjudication before the board. Before it came to hearing, 18 of the company's 55 employees left to accept employment in a nearby magnesium plant of the Diamond Alkali Co., which pays a higher starting rate. Alarmed at the loss of more than 30% of its working force, Staley agreed to the union demand, joined the union in asking the NWLB to approve it. But NWLB turned it down. The board's decision stated that it will not on its own initiative as a matter of policy, "approve wage increases for the purpose of influencing or directing the flow of manpower."

The Staley decision split the board with three labor representatives dissenting from the public-employer majority. Cyrus Ching, vice president of the U. S. Rubber Co., headed the list of employer members supporting the decision. He was sitting on his first case as a regular NWLB member, having been appointed by the President to fill the post resigned by E. J. McMillan of Standard Knitting Mills. Succeeding Ching as an alternate member is Reuben B. Robertson, executive vice president of the Champion Fiber & Paper Co. Frederick S. Fales, former vice president of Standard Oil Co. of N. Y., also was appointed to an alternate membership to succeed R. R. Deupree of Procter & Gamble.

FINANCE

Coupon Checks

Ration-banking gets off to good start in Albany test. Most dealings go smoothly, but some small retailers gripe.

It was a typical weekday morning in the bank. A line of customers worked its way past the teller's window, making deposits, cashing checks in routine fashion. Then a grocer appeared at the wicket, white apron still cinched about his middle, his hands full of numbered sheets that carried straggling rows of sugar ration coupons. He pushed the sheets and a couple of deposit slips across the counter.

• **As Easy as That**—The teller clipped one slip to the sheets, swiftly initialed the other and handed it back. Without looking around, he slid the sheets behind him onto a desk where a bookkeeper was checking over similar collections of sugar stamps. The bookkeeper added them to a neat pile on the corner of his desk, with unconscious orderliness squared up the ends, and went back to work. The whole procedure, from the time the grocer appeared at the window to the moment when he vanished into the revolving door, took perhaps half a minute.

"There you are," said a vice president standing nearby. "That's ration-banking. It's as simple as that."

• **Almost Painless**—Throughout the Albany (N. Y.) area, where the Office of Price Administration is experimenting with a new system of clearing ration coupons, bankers say the same thing. It's as simple as that. In spite of the kinks which inevitably show up when a plan gets its first trial, Albany banks are finding that their new job goes smoothly and almost painlessly.

In some respects, the Albany experiment has really proved too simple. With only two commodities—sugar and gasoline—and a single area that is pretty much self-contained, the test is coasting along easily. The few difficulties that have come up so far are largely technical. Some of the forms, for instance, were an awkward size for banking machines.

• **Problems for the Future**—But OPA wants to apply ration-banking on a nation-wide basis, and it can't be sure yet what new troubles will arise when the system is extended to cover many regions and a number of commodities.

Object of ration-banking (BW—Oct. 24'42,p98) is to set up a system of book credits that will simplify the process of exchanging ration coupons. The system

has no effect on consumers, but it makes a big difference to merchants, both retailers and wholesalers.

• **New Checking Accounts**—Under the Albany plan, a dealer deposits his coupons with a bank instead of sending them directly to his supplier. When he wants to restock, he gives his wholesaler a nonnegotiable "transfer voucher," which the bank charges against his ration account. Thus a flexible checking system replaces the clumsy process of shuffling thousands of stamps from hand to hand.

To see how the system would look in operation, OPA decided to make a six-week trial using Albany as a test tube. It began Oct. 26 with 18 banks and their 15 branches participating in the experiment. Things got under way slowly because dealers were fairly well stocked, and many didn't open accounts until they were ready to reorder. By the end of the first two weeks, however, the system was hitting its stride.

• **Gasoline Dealers' Option**—All sugar dealers, wholesale and retail, come under the plan, but gasoline retailers were allowed to continue under the old system. On Nov. 10, the banks had 1,200 sugar accounts on their books. They had accepted 1,472 deposits, representing 2,600,000 lb. They had cleared 438 transfer vouchers, withdrawing a total of 950,000 lb.

Gasoline distributors had opened 30

GOING UP

In 1922, Elmer F. Richter started work as secretary to the president of the Addressograph Co. of Chicago. Last week President J. E. Rogers of the Addressograph-Multigraph Corp. of Cleveland, in which his original company was merged, announced his promotion from assistant general manager to general manager.

THE MARKETS

Apparently the Treasury is beginning to do some serious worrying about the volume of bonds it has been selling to commercial banks. At least, that's the way Wall Street interprets recent changes in the government's borrowing policy. All the new features that Secretary Morgenthau announced last week shift the emphasis toward placing more securities with private and institutional investors.

• **Suiting All Investors**—Until now, the Treasury has been making frequent trips to the market, offering only one or two issues at a time. Under the new policy, it will do its borrowing in big bimonthly operations designed to bring in $10,000,000,000 or so at a shot. Instead of marketing single issues, it will give investors their choice of several different securities with varying maturities and varying interest rates.

By offering a wide selection, the Treasury can coax out all sorts of private buyers who wouldn't pay any attention to an issue aimed at bank portfolios. At the same time, if it includes a good medium term bond in the package, it can count on the commercial banks to take up as much as it wants them to. Hence, it can concentrate on selling bonds outside the banks and still be sure of getting all the money it needs.

• **Sales Job Now Possible**—Incidentally, the new system will do a lot to soothe banks, which have accused the Treasury of making them take bonds that could have been placed with private buyers. When the bimonthly operations start, securities men will be able to stage their first full dress sales campaign. A special committee of the American Bankers Association will have a hand in laying out plans. Hence, banks will have an opportunity to sell as much as they can to the public before they have to take anything more into their own portfolios.

All this makes bankers feel a lot better about the war financing situation. With the Treasury leaning on them more and more heavily, many commercial banks were getting uneasy. In the last six months of 1941, banks took up 41% of the increase in marketable government debt. The first half of this year, they took 56%. Rough estimates show that in the three months ending with September the percentage worked up to 66%.

• **Seat Value Reflects News**—Treasury announcements weren't the only good news of the week, however. Although the stock market continued to back and fill with exasperating indecision, most traders thought developments in Africa and the Solomons would eventually contribute to a rally. A stock exchange seat sold for $30,000, almost twice the recent low of $17,000.

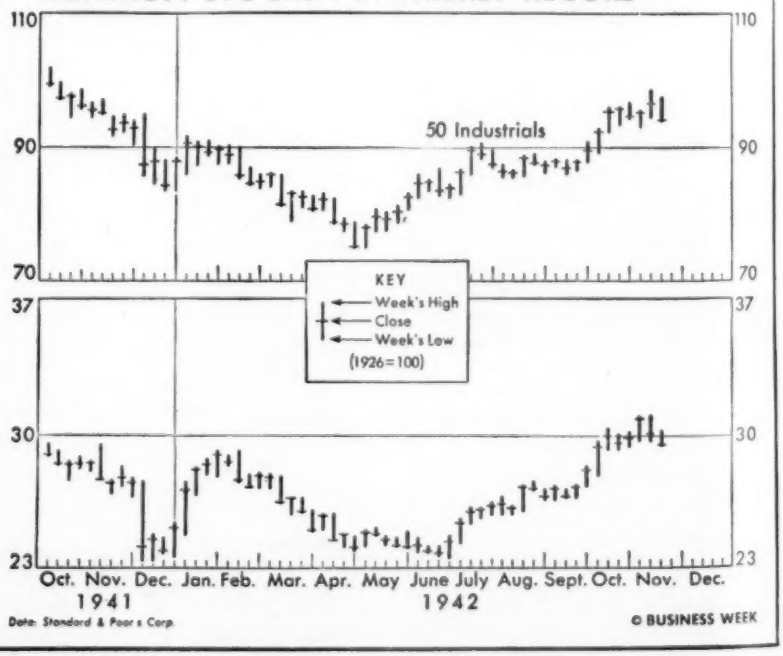
New York Central stockholders are still rejoicing over the $1 dividend they got last week, the first in eleven years. Central jumped ⅞ on the news and so far has held its gains.

Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
Stocks				
Industrial	94.0	96.5	95.8	92.7
Railroad	29.5	30.1	29.6	27.5
Utility	35.5	36.7	34.2	37.4
Bonds				
Industrial	114.6	113.2	111.2	105.9
Railroad	87.4	88.0	87.7	83.9
Utility	108.4	108.1	107.4	107.5
U. S. Govt.	109.9	109.9	110.0	112.2

Data: Standard & Poor's Corp. except for government bonds which are from the Federal Reserve Bank of New York.

COMMON STOCKS—A WEEKLY RECORD



accounts and made 62 deposits for a total of 7,000,000 gal. They had drawn four vouchers representing 620,000 gal.

Banks are taking the extra work in their stride. Most of them are handling ration transactions at any teller's window, subject to later verification by a special teller who checks over all the day's ration deposits and withdrawals. The larger banks have found that the job of checking and recording coupon transactions keeps one bookkeeper busy full time.

• **Big Stores Well Pleased**—Dealer reaction has been mixed but generally approving. Wholesalers and big distributors like the system better than small shopkeepers. The little merchants complain that they don't do enough business to make bank clearings worth while. It was easier, they say, just to hand over the coupons to their suppliers.

Bankers expect that OPA will take care of this problem by drawing a "cut off" line somewhere through the list of dealers—that is, exclude the small operators from the ration-banking system or make it optional for them.

• **"To Hell with That Idea"**—But the cutoff would also have its problems. OPA would have to do its own policing to make sure that dealers were using the proper method for their scale of business. Wholesalers don't want to take over the job. As one of them put it, "If they do that, then a guy calls up for sugar and you gotta find out how much business he does, and what was his grandmother's name, and was his mother and father married, and to hell with it."

Arguments over where to make the cutoff have already cropped up among gasoline dealers. The big suppliers would like to have retailers brought under ration-banking so that their truck drivers wouldn't lose time collecting coupons. Filling station owners, many of them single operators on the outskirts of town, want to keep on using coupons. To go to the banks, some of them would have to lock up the pumps and leave their stations.

• **New Business Possibilities**—Bankers are still watching uneasily to see what effect ration-banking will have on their relations with the public. Some are afraid that they are getting mixed up in an unpopular project. As they watch the system work, however, a good many are beginning to think it gives them a chance to build up a lot of good will and establish connection with potential customers.

Another unsettled problem is how to handle clearings between districts when the plan goes on a national basis. This hasn't come up in the Albany area where all the banks are in close touch with each other. Bankers think the best solution would be to have the Federal Reserve Banks handle it just as they do inter-regional check clearings.

ADVERTISERS IN THIS ISSUE

Business Week—November 21, 1942

Distillers' Wine

Schenley-Roma deal looks like a trend as other whiskey makers reach for the American wine trade, spurred by war.

California wine men see the purchase by Schenley Distillers Corp. of Roma Wine Co., reputedly the largest wine producer in the country, and of two other wine properties as significant moves in a scramble by leading distilling firms for position in the domestic wine industry. Explanation for the trend is that, with European sources closed, the large concerns are turning toward American wines, already nationally promoted, as a stopgap.

• **Other Deals Expected**—Several such deals were reported in the wind in San Francisco this week, following the Schenley move—which, incidentally, makes this company the largest single factor in the domestic wine industry.

Schenley's invasion of California started early in 1941 with the purchase of the Cresta Blanca Wine Co. (storage capacity of about 1,000,000 gal). Last September, the distiller bought the Colonial Grape Products Co., near Sacramento, with a capacity of some 1,700,000 gal. of dessert wines. Last week, in addition to buying Roma for something like $6,000,000, Schenley got Central California Wineries, a grower-owned cooperative group of 14 wineries, with a combined capacity of 12,000,000 gal.

• **National and Walker, Too**—National Distillers Products Corp. also has had a foot in the door since, early in 1939, it bought Shewan-Jones, Inc., of Lodi, producer of brandy as well as of table and dessert wines. And W. A. Taylor & Co., a subsidiary of Hiram Walker, now distributes wines from the San Benito wineries at Hollister.

Roma's wineries are at Fresno, Lodi, and Healdsburg, with inventories in San Francisco, Sacramento, and Los Angeles. The company has a storage capacity of about 20,000,000 gal.

SEC SUED AGAIN

The Securities and Exchange Commission found itself in the midst of another big legal battle this week as Engineers Public Service Co. went into court to fight a recent divestment order. Like the six other companies now challenging SEC's authority (BW—Nov.7'42, p95), Engineers will try to prove that the death sentence clause of the Public Utility Act of 1935 is unconstitutional. In its petition, Engineers charges that Section 11(b)(1)—the geographic integration clause—places unwarranted restraints on intrastate business.

THE TRADING POST

More on Advertising in Uniform

Last week, in its New York meeting, the Association of National Advertisers heard some authoritative talk on the place of advertising in the war effort.

Donald Nelson made clear its status, both in the civilian and war-production departments of business. He said in part:

Whatever our war program may be, it rests upon the civilian economy as a base. An unsound civilian economy cannot carry a huge war program any more than a half-starved man can do a heavy day's labor. What we mean by a war economy, of course, is not a "business-as-usual" economy, but an economy stripped down to the absolute essentials. . . . That rule of essentiality is the guide for all phases of civilian activity. We make a mistake when we try to distinguish between the military and civilian sides of our war effort. It is all one effort. We are trying to hit the enemy the hardest possible blow in the shortest possible space of time that American strength, resources, and energy will permit. Therefore, everything that we do has to be planned and controlled with that end in view. Providing the civilian goods and services which keep our factories in operation and maintain our supplies and food and power and energy is just as much a part of the war program as equipping a new division of infantry.

Turning to the specific function of advertising, Mr. Nelson continued:

What then are the needed uses for advertising in our war economy? They are principally these.

First, where a manufacturer continues to have goods to sell to the civilian market, advertising has the same role it always had—to help him sell them.

Second, the manufacturer who is now selling his goods to the government instead of to the civilian may still have a very proper need for advertising. He can very usefully, for instance, tell his former customers how to use and conserve and service the goods which he has previously sold them. Those goods in service may very well constitute the country's sole remaining stock of such articles. It is certainly right for the manufacturer to use advertising to help make that stock last.

Then there are companies which, as far as the consuming public is concerned, are virtually out of business. Where such a company expects to return to the civilian market after the war, it has a perfect right to use advertising to preserve its name and its good will. The government fully recognizes the propriety of reasonable expenditures for advertising to preserve the value of those assets.

Lastly, advertising has a very great usefulness as a means by which a company can participate directly in the war effort. Extremely valuable work has been done by the national advertisers, the great advertising agencies, and the various advertising media in supporting such things as the salvage drive, for example. I would like to pay my tribute right now to the organizations and individuals which have contributed time, money, and skill to such campaigns. They have been a direct and genuine help toward winning the war.

That this appraisal of advertising's task by the head of the war effort is accepted by the advertisers was made evident by Paul West, president of the Association, who said:

Under a war economy the advertising functions are: (a) to continue to inform the public in those cases where there are products to sell; (b) to inform the public and the trade about changes in the quality, content, and appearance of a product necessitated by the war; (c) to help the war effort by informing the public and arousing action in such a way that the public, the industry, and the war effort all benefit; (d) to inform the trade as to post-war product developments, which function becomes increasingly important as salesmen are necessarily withdrawn; (e) to stimulate plant morale, better employee relations, better workmanship. Advertising just for vainglorious notice and advertising which can't demonstrate that it performs a needed and useful function will be out.

Memo: Drop a Line to . . . .

"Now that election is over," remarked a business executive the other day, "I wonder what a lot of men who have been sounding off on the need for a change in Washington are going to do about it. How many of them, for instance, are going to feel that they have done their duty, give themselves a resounding pat on the back, and go back to their various personal interests in a glow of self-satisfaction and confidence that things are going to be different?

"The men who do that, it seems to me, are forgetting that every one of these new congressmen and governors who were elected as a protest against the way things have been going now becomes a target for the concentrated effort of those with bloc interests to serve.

"It isn't any use just to elect them and then leave them on the spot to stand alone. The other fellows won't leave them alone. I wonder, for instance, just how many business men, who have been heartened by the election results and who are counting on the trend it indicates, have even taken the trouble to write a note of encouragement and constructive suggestion to these newly-elected officials.

"Unless these men can be made to feel at all times the supporting presence of the voters who have put them in office, it will be perfectly natural for them to be more influenced by those who 'stay with' them than by those who elect them and then neglect them."

All of which I pass on to you just as I got it from him. W.C.

THE TREND

IT'S MORE THAN MACHINERY

"In eight months this war can be won if we tackle now a resolute overhauling of the war production machine." With this sweeping preface, a proposal to reorganize the war effort has been placed before the public by Representative Tolan and a group of five Congressional committee chairmen.

Incorporated in a bill—H. R. 7742—now in the hands of the House Committee on Military Affairs, this proposal would centralize under a Director of War Mobilization, the present Office of Economic Stabilization, an Office of Production and Supply, an Office of Manpower Supply, and an Office of Technological Mobilization.

• **However, we have already centralized** our production control in one agency, put our anti-inflation machinery in the hands of another; the War Production Board has just organized an Office of Production Research and Development; plans to meet the need for unified manpower administration are now reportedly "in the works." Thus it is clear that the heart of what's new in the proposed reorganization is the super-unification of production, manpower, and inflation agencies.

What unification we have had so far, or are now undertaking, has been more specially designed to correct overlapping of functions within each of these three fields of action. Thus, even before Pearl Harbor we ended a dual production setup by moving civilian supply from the Office of Price Administration to Mr. Nelson's bailiwick. Creation of the Office of Economic Stabilization was recognition that price, wage, and purchasing power problems are one. And now Selective Service and the Manpower Commission may be combined.

• **Expansion of the war economy** itself has forced these measures and no schematic division of authority can be held rigid against the burgeoning of the war effort. A day before release of the present Congressional proposals, Stabilization Director Byrnes asked the WPB to study and determine minimum civilian needs and to press the standardization and simplification of civilian products. With rationing and control over excess income becoming big immediate tasks, clearly OES strategy must be closely geared to the size and specifications of civilian supply. Thus, OES has to go to WPB to do part of its job. WPB is, and will be increasingly, occupied with manpower problems, even if these should be handled by a centralized authority; and if it wants wage changes to enlist manpower for production, it must go to OES.

This interplay, certainly, will be increased as controls are extended. For instance, any administrator set up over food would have to deal with manpower, materials, wages, and rationing—and to work closely with the agencies dealing directly with the problems they pose.

Formal centralization is no automatic solution to administrative ills. Consider the British setup. Their war production is handled by a Minister of Production superimposed on Ministries of Supply and of Aircraft Production, and the Admiralty. But the Board of Trade administers civilian production.

No one agency is charged with price-fixing; the Ministries of Food, Supply, Fuel, and the Board of Trade all have a hand in it.

• **And yet, what would seem** to us an impossibly confused setup apparently works. The coordinating job is done by inter-ministerial committees, headed by the War Cabinet and its subcommittees.

On manpower, the one centralized British agency to which critics point is the Ministry of Labor and National Service. Yet on that constant subject for British debate, the optimum size of the armed forces, the decisions have to be made, not by the centralized agency, but jointly by the top civilian and military strategists—as they are here.

In Britain, then—as must be the case in any war administration—there is both subdivision and integration. And the pattern of war mobilization is set by high policy.

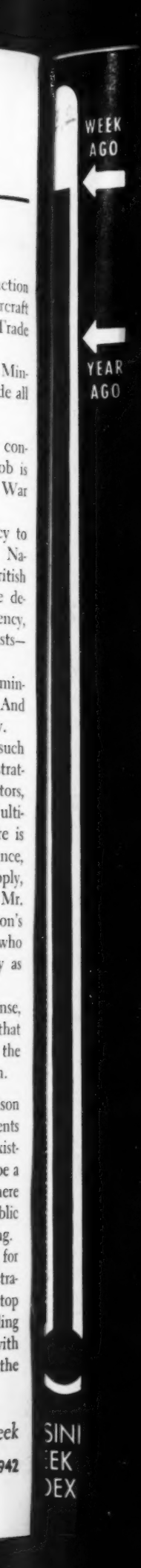
In this country we have now some measure of such coordination. Questions of fundamental economic strategy are handled centrally by present top administrators, the military, the President's personal advisers, and, ultimately, by the Chief Executive himself. And there is coordination further down the line. When, for instance, Mr. Byrnes asks Mr. Nelson for action on civilian supply, what he is really doing is transmitting a request from Mr. Henderson, in the latter's OPA capacity as the nation's rationer, to Mr. Nelson, as chairman of the WPB, who then transmits it to Mr. Henderson in his capacity as Director of Civilian Supply in WPB.

That may not be centralization in the formal sense, but it works to much the same purpose. To assume that a reorganization of the formal setup would solve all the problems involved would be to beg the real question.

• **Actually, the provisions** in the proposed bill for liaison machinery and for a central committee on requirements and program would, in the main, simply formalize existing ways of doing things. Perhaps that much would be a gain, for a fixing of formal procedures lets us know where we stand. The Tolan committee bill does focus public attention on our prime need—for coordinated thinking.

But administrative reorganization is no substitute for that thinking—any more than it is for efficient administration. By itself it will not, as Senator Pepper thinks, stop us from "turning out planes without propellers, building tanks without replacement parts, or inducting men with irreplaceable skills." And, by itself, it will not win the war in eight months.

The Editors of Business Week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